The Zenith

Students' Magazine, 2023

BIRSA AGRICULTURAL UNIVERSITY

Ranchi, Jharkhand

www.bauranchi.org

Placement Fair and BAU-Industry Meet – 2023

BAU, VC Dr. O.N. Singh inaugurated the programme

BAU, VC Dr. O.N. Singh addressed the programme

Participation of UG, PG & Ph.D. students of the University

GM, NABARD, Ranchi, Mr. Gautam Kumar Singh addressed the programme

Dignitaries release the placement poster of the programme

Dignitary felicitated Speaker Mr. Pradeep Hazari, Spl. Secretary (Agri.), GoJ during sensitization of student

Students' & representatives of Galvanizing potential, Ranchi during counseling by institutes

Dignitaries, Representatives of Career Launcher, Ranchi and students during counseling by institutes

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Students' Magazine, 2023

Directorate of Students' Welfare

BIRSA AGRICULTURAL UNIVERSITY

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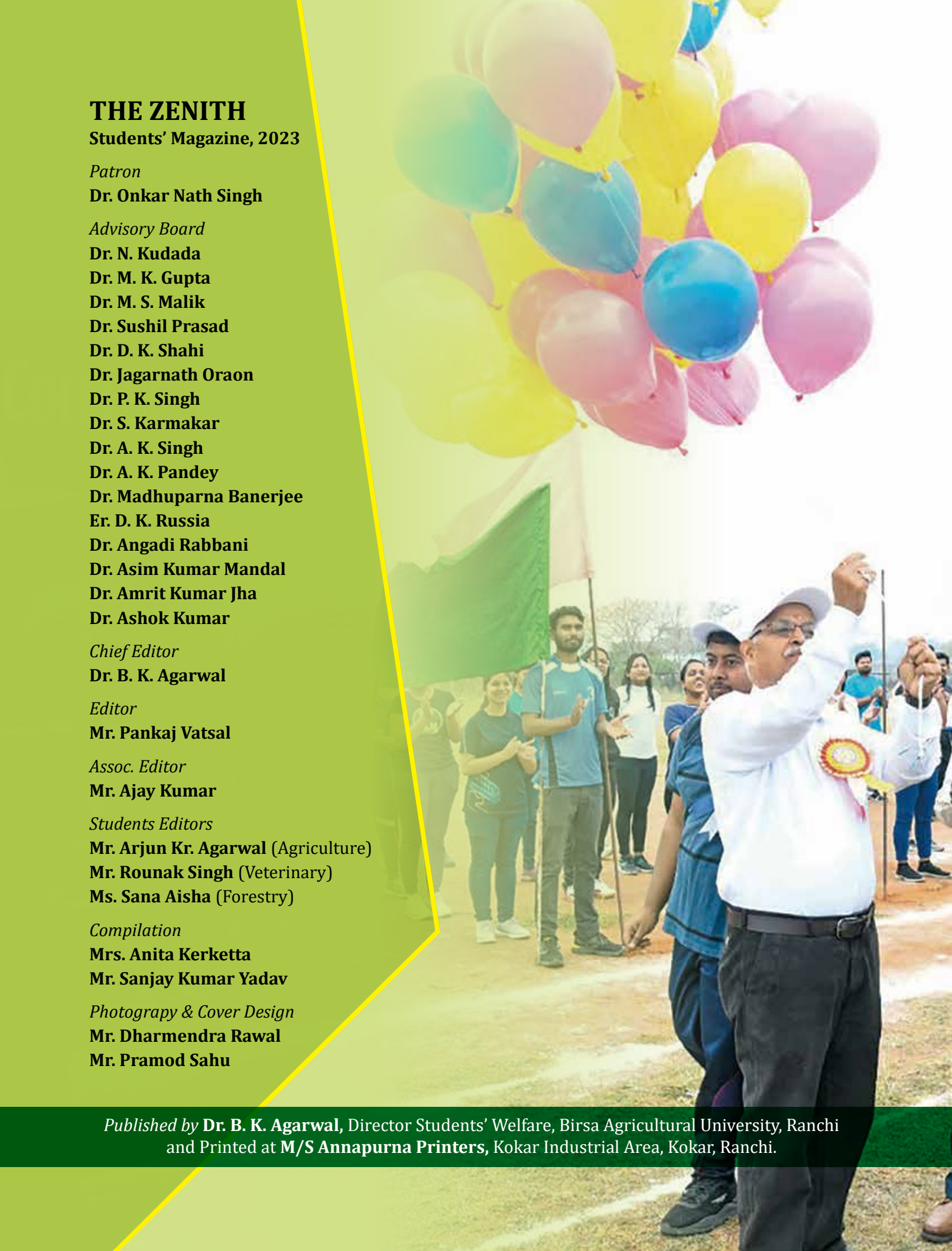

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C. P. Radhakrishnan

सत्यमेव - जयते

GOVERNOR OF JHARKHAND

RAJ BHAVAN
RANCHI - 834 001
JHARKHAND

MESSAGE

I am happy to know that Birsa Agricultural University, Ranchi is going to bring out the new issue of its Students' Magazine **'The Zenith'.**

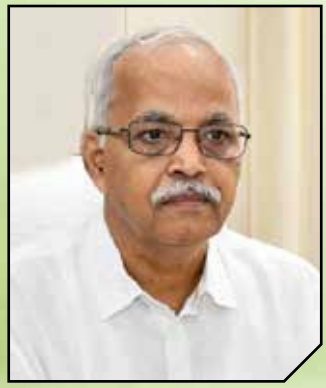
The entire purpose of education is not to impart bookish knowledge only but to inculcate values like wisdom, compassion, courage, humility, integrity, honesty and reliability also in students. I believe in holistic education for your child, encompassing-academics, co-curricular activities, sports education, and life skills learning.

Students' Magazine of universities and colleges provide a creative platform for students. Apart from their curricula, the students travel to the islands of their genius. These activities fulfill his task of 'learning' point in the direction of Gurudev Ravindranath Tagore who had given more importance to these activities in his educational culture. Therefore, the publication of magazines serving as fora of creative activities is always welcome.

I wish all success to the BAU students' magazine 'The Zenith' and congratulate the team involved in bringing out it.

(C. P. Radhakrishnan)

BIRSA AGRICULTURAL UNIVERSITY
KANKE, RANCHI



Dr. Onkar Nath Singh
Vice-Chancellor

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Website : www.bauiranchi.org

MESSAGE

It gives me immense pleasure to know that the next issue of students' magazine **'The Zenith'** is being brought out. Since a good writing and communication skill is an effective tool for success and recognition in any profession, students must use this forum aimed at promoting their creative talents. There is no short cut of developing effective writing style; it needs continuous practice and reading a lot of relevant literature.

With the untiring efforts of scientists and farmers and huge investments by the government in agricultural research & development during plan periods, our country has been able to increase the production of food grains by four times, horticultural crops by six times, fish nine times, milk six times and eggs twenty seven times since 1950-51. However, scenario is not encouraging in Jharkhand as the state is still struggling to achieve food – sufficiency on these fronts barring vegetables. Students obtaining graduate and post graduate degrees from this university have to shoulder the responsibility of drivers of change in state's rural sector. The state government spends over Rs. 25 lakhs on producing each graduate and post graduate who must think and act for the farmers and farming of the region.

According to an ICAR document, the existing education system in agriculture and allied disciplines like horticulture, forestry, dairy, veterinary & animal husbandary, fishery, agricultural engineering, biotechnology is producing 24,000 graduates per year of which two thirds are in crop sciences stream.

Keeping in view the future requirement of qualified human resource for the state, our 7 new colleges have started producing graduates. Our efforts are aimed at making farming more profitable and bringing cheer on the face of the farmers who toil hard in the sun and rain to feed the nation.

Hope the contributors will find this publication enriching, enlightening and interesting. I convey my best wishes for success of this effort.

(Onkar Nath Singh)

BIRSA AGRICULTURAL UNIVERSITY
KANKE, RANCHI

Dr. B. K. Agarwal
Director, Students' Welfare

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From the Desk of Director, Students' Welfare

Students these days get attracted towards any institution offering technical and professional courses on the basis of its placement records as majority of them consider university degrees not as a certificate of knowledge & skills but as a passport for gainful employment. We too are concerned for improving the employability of students and course curricula have been modified keeping in view the emerging challenges before the profession and demand of employment market.

With the strengthening of Counseling cum Guidance Cell, campus placements of our students have improved. Number of banks, other financial institutions and NGOs are regularly visiting our campus and recruiting students. On the feedback of visiting employers, we have also initiated effective steps for improving the communication and presentation skills of our students who have impressive technical knowledge of their subjects but majority of them lack to express themselves as per the expectations of the employers. ICAR National Talent Scholarship, Rajiv Gandhi Fellowship and Maulana Azad Fellowship of UGC were given to the qualified M.Sc. and Ph.D. students. State Government Merit Scholarship and Fellowship was disbursed as usual.

We are committed to improve hostel facilities and promote sports, literary and cultural activities on the campus. The University team has been regularly participating in all the Agriversity Youth Festivals and All India Agricultural University Sports Meets and bringing laurels too. Sarhul festival, Sarswati Puja, Janmashtami, Deepawali Fest, Birsa Jyanti, Sahadat Divas, Chrismas Gathering and Ambedekar Jayanti were celebrated with all enthusiasm. College level Annual Sports and Games Meets are a regular feature. As part of our activities, this year also we felicitated the meritorious students and achievers of Youth Fests.

This annual publication serves as a wonderful platform for our budding writers and poets who feel encouraged to see their creative compositions printed. This Magazine also helps in cultivating literary taste and study habits among students and inspires them to read and write much more.

I congratulate the Editorial Team and the contributors for their endeavour.

(B. K. Agarwal)

Content

POEMS

ARTICLES

Content

कविताएँ

आलेख

MISCELLANEOUS

BAU, A Poetic Tapestry

Adin Jamal, *3rd Year, Batch 2020, RVC, Ranchi*

In the heart of Jharkhand's verdant land,
Where nature's blessings gracefully expand,
There lies a haven of knowledge and might,
Birsa Agriculture University, a radiant light.

With sprawling fields and fertile soil,
It nurtures dreams with unwavering toil,
A sanctuary for those who yearn to learn,
Where wisdom blossoms at every turn.

In the Faculty of Agriculture, seeds take root,
Where farmers' dreams bear abundant fruit,
From crop cultivation to soil science profound,
A symphony of growth, in harmony, resound.

The Veterinary Faculty, a realm of compassion,
Healing creatures with love and tender action,
A sanctuary for creatures big and small,
Where their well-being matters most of all.

Forestry, the realm where nature finds a voice,
Birthing harmony between trees and choice,
Here, conservation dances with sustainability,
Preserving forests, a precious legacy.

And in the Faculty of Fishery, a world aquatic,
Where shimmering waters, vibrant and enigmatic,
Aquaculture thrives, a lifeline for many,
Feeding the world, a noble endeavor plenty.

Birsa Agriculture University, a tapestry rare,
Where diverse faculties blend with utmost care,
Each thread contributing to a grand design,
A symphony of knowledge, divine and fine.

Here, students flourish, their talents unfurled,
Nurtured by teachers who inspire the world,
They walk the path of wisdom, bold and true,
Equipped to shape a future that's anew.

So, let us raise our voices high and sing,
Of Birsa Agriculture University, a glorious thing,
A beacon of hope, where dreams take flight,
Guiding us towards a future shining bright.

Nature

Bijeta Rana, *2nd Year, R.A.C., Ranchi*

Nature is a beautiful gift,
which can never be missed.
Nature is a treasure,
which we cannot measure.
Nature is just like a human being,
which has flora and fauna as part of them as living thing.
Nature can never be cheated,
which if gone, can never be repeated.
So, try to preserve the nature,
then only we can become a good creature.

Glory of Agriculture

Abhishek Kumar, *3rd Year, CAE, Ranchi*

Fields of gold and green,
Stretching far as the eye can see,
Agricultural Engineering,
A world of innovation and possibility.

From seed to harvest,
Nature and technology entwine,
Sustainable solutions,
For a future that is kind.

Machines that till and sow,
Precision planting with ease,
Irrigation and fertilization,
Productivity increased.

The beauty of the land,
Preserved and enhanced,
Agricultural Engineering,
A true marvel of human advance.

So let us celebrate,
This field of science and art,
For in Agricultural Engineering,
Lies the future of our food and heart.

Bachpan

Ritik Raj, *5th Semester, TMAC, Godda*

Ek bachpan tha suhana sa.
Na uska tha koi thikana sa.

Sakul jane ki jid mai lada karta anjana sa
Subh jata saam aata na jane kya karta Par
rhta humesa khilkhilta sa.

Tifin ke time bachpan ka tifin na jane kon sa khajana tha
Or usi tiffin ke time na jane class mai kon sa hangma tha.
Ek bachpan tha diwana sa.

Toh Kabhi bachpan ladta tha jhagdta tha
Na jane kya kya karte tha
Bachpan biology lab na jane
Kyu us asli kankal se baate Kiya karta tha

Biology ki class mai sirf mam ki baate sunne ka bahana
Na jane un mam ko bhi pata tha ye toh bas ek bahana tha

Jis Hindi ki period mai bachpan ka muh ka Sutter khula rehta tha.
Na jane kyu rowdy ke aane se chemistry ki class mai sanata tha.

Sakul ke canteen mai jate bachpan ko dekh uske dosto ka chip ke aana tha.

Or usi do samose mai 5 -6 ladko ka pet bhar Jana tha.

Subh subh bachpan nikalta apni cycle se akela tha.
Na jane kuch der ke baad ek do log ka uske cycle pe basera tha.
Late hone pe na jane cycle se motorcycle ban jata tha or
Cycle ki chain khulne pe bhagwan bacha Lena ab se nhi hoga ye bahana tha.

Skul se aate wakt ek rupiya ki ek Pola milta tha.
Toh
Bachpan ne kharida do Pola ki abhi or dusra Ghar pe.
Na jane us do rupiya ke liye dosto ka dhamkana tha dekhna hum nhi denge ye unka bahana tha

Us samay bachpan ko maa ka subh subh daant ke uthana tha.
Or der hone papa ki scooter par sakul chale jana tha.

Hai bachpan tu bada kyu hua re bas tujhse afsanas tha.
Tere badle kuch bhi Dena pade ye manjoor.
Par tu wapas aaja. Bas itna chahat tha
Ek bachana tha diwana sa.

No Matter What Happens

Aastha Srija, *5th Semester, TMAC, Godda*

Dreams are leaving my heart behind ,

Hold fast to dreams ,

For if dreams die ,

Life is a broken wined bird , That cannot fly .

Hold fast to dreams, For if dreams go,

Life is a barren field, Frozen with snow.

Life

Anandita Sinha, *5th Semester, TMAC, Godda*

Enter in the Black Night Moon with engrossment,
But Arouse with assurance.
Having life with one's action,
Escalates upto the perseverance.
Be in the working order as the triazole's munificency,
Rather being the Blast Of Rice. Life without adversities is wondered, As if Zea mays without Urea. Seconds of clock in the Ocean Of Optimism, Hikes the Longevity Of Life. Live the life majestically and, Die monumentally.


"Pawspective : Chronicles of a Veterinary Voyage"

Shashank Kumar Shivam, *2nd Year, RVC, Ranchi*

In the realm where compassion thrives,
A noble soul with healing drives,
A veterinary student, strong and bright,
Embarks on a journey, a radiant light.

With a heart filled with love and care,
They enter a world where creatures share,
A bond unspoken, profound and deep,
Where their dedication they will always keep.

In the lecture halls, they immerse their mind,
Anatomy, physiology, a vast knowledge to find,
From the smallest of creatures to the grand,
They study each species, to understand.

Their days are filled with endless toil,
Learning the art of mending and foil,
With steady hands and attentive eyes,
They acquire skills, as time flies.

From stethoscopes to surgical gowns,
Their hands master techniques renowned,
They learn to mend broken wings,
And soothe the pain that suffering brings.

They tread the path with compassion's grace,
h sleepless nights and a hectic pace,
For every animal that's in their care,
They strive to heal, to alleviate despair.

They witness both joy and sorrow's tide,
Celebrate life, yet sometimes abide,
With the grief that comes when a life departs,
A weight they carry, etched in their hearts.

But amidst the challenges that they face,
They find solace in each patient's embrace,
In wagging tails and purring delight,
Their purpose shines, an unwavering light.

And when they graduate, with a degree in hand,
They step into the world, where they'll expand,
Their knowledge and skills, to heal and to mend,
Every creature, companion, a faithful friend.

A veterinary student, a guardian of life,
With compassion as their guiding strife,
They champion the voiceless, gentle and true,
Blessed are they, for the work they do.

So let us honor their selfless quest,
For they epitomize the very best,
In this world of animals, great and small,
A veterinary student, cherished by all.

Friendship

Ritika Ghosh, *8th Semester, TMAC, Godda*

Friendship is not about, Always being together,
It's about being there,
Even when it's a nightmare.
Friendship is not about, Looking out for each other,
For just a reason.
It's about having each other's back,
Even when situation is defying
The reality full of reasons.
Friendship is not about,
Chatting each day,
Stating you accompany.

Friendship is about,
Telling that I'm here,
Even when you are,
Not terrified to be alone.
Friendship is meaningless,
If Commitments are done,
To justify a relationship you have.
Friendship is only a promise,
You make and hold within yourself,
For the one you love,
Being called as a your friend.

What am I worth

Vishalakshi Choubey, *8th Semester, College of Horticulture, Khuntpani (Chaibasa)*

Teardrops fell from Shelley's face, as she held her mother's hand
Sorrow filled her broken heart, as she fought to understand
Why her mom was dying, why she had to let her go
And as her fear grew stronger, Shelley felt her panic grow
For how would she survive without her mother guiding her along?
Giving words of encouragement, support to make her strong?
As Shelley started trembling, the tears continued down her cheeks,
She realized that the end was near, she'd prepared for it for weeks
But now here in that moment, Shelley couldn't say good-bye
Instead she stood there silently as her mother watched her cry
And as if her mother read her mind, or maybe her heart,
She spoke her final words, intended to leave their mark
"There are so many things I need to say, so many things before I go,
But time is of the essence, so it's important that you know...
That sometimes, you'll feel powerless, believing you can't win
What others think of you will be the image you hold within
"You'll feel you have to follow quietly, at someone else's pace,
And be the image on magazine covers, the perfect smiling face
With the pressure to be perfect, you'll doubt yourself, and what you can be,
But I ask of you, dear Shelley, whenever you doubt yourself, stop and think of me
"For when I look into your eyes, I see a million stars,
Shining from within, all you're magic and who you are
In your face, a flower's blossom, a starlit winter's night,
A butterfly's wings spread gracefully, without effort taking flight
"A summer's breeze and sunlight, colorful leaves found in the fall,
Springtime filled with new life; Shelley I've found it all
All in life that's remarkable, when I look at you, I see
And if you can't believe that of yourself, then at least believe in me"
Shelley listened closely, as her mother's breathe grew weak,
She wanted to remember every word her dying mother fought to speak
"You can always make excuses, or you can make great plans,
You can bow your head in shame, or, Shelley you can take a stand
"And know how well deserved your place is in this world
Be a clear example, be a mentor to every girl
Take pride in all you are... a woman who is strong
Even when you stumble, when you feel you don't belong
"For God had a part in making you, and all that's on this earth,
And even if you don't realize it, you have tremendous worth
For even though a butterfly may seem delicate...fragile to the eye,
Don't you overlook the fact; it has what it takes to fly"
Shelley's mother closed her eyes; her life on earth was gone,
But her words remained behind, giving Shelley the strength to carry on
For in her mother's words, she heard a message reliable and true:
There is nothing in this world that a woman cannot do
Though there are often times when Shelley feels weak and small,
And it would seem easier to give into others, instead of proudly standing tall,
She finds herself thinking clearly of all the little girls on earth
Who feels so unimportant, not aware of their own worth
And then she hears her mother's voice, from a breeze softly passing by,
"Don't you overlook the fact, you have what it takes to fly"



Agricultural Engineering

Md. Kaif, *Batch : 2021-25, College of Agricultural Engineering, Ranchi*

Once upon a time,
The farmer wanted,
The seed prime,
He did the hard work,
He expended all his coin,
He digged the soil,
Watered the land till the brime,
Visited all the shrine,
Rang every chime,
In the name of god,
For the shake of yield,
But he got the path of spine,
And tasted the sour lime !!
He lost his mind,
He lost his prosperity in due time,
He got himself quarantined,
Later one man visited his land,
He declared the land,
A high fertility line,
The farmer was amazed,
He asked then why my crops failed,
The man replied,
You need a technical support,
By leaving the past trail,
Your yield will go high,
The technical farming you should try,
I am an agricultural engineer,
From the village near,
To help you in saying your loss a goodbye !!
Use our machine for ploughing,
Develop the canal for watering,
Sow the seeds in lines,
With our machine in no time,
Put the fertilizer too with seed,
With our machine indeed,
If you wanna transplanting,
You wanna sapling planting,
The machine I have for everywork,
For which you were chanting,
All this will help in getting the yield high,
Wanna do pesticide spraying,
Tired of year round weeding,
Not the point of much worrying,
Go for the proper machining,
For this purpose only,
There's the branch called,
Agricultural Engineering !!

This is the saga of countless farmers that have been empowered with the help of Agricultural discipline of Engineering.

The Seed was About to Sprout

Ishita Mukherjee, *Session : 2019-20, PJMCDT, Hansdiha (Dumka)*

The seed was about to sprout
maybe I overwatered it
perhaps you neglected it
either way, damage is done
we've managed to outgrow one another
without the chance to grow together
the season came to an end before it could even start
I ask mother nature "why?"
she tells me I wouldn't want my apples to flourish
only for worms to crawl out of them

Paradox of Life

Spriha Singh, *RAC, Ranchi*

The truths you see aren't truths
The facts aren't facts anymore
You can't decide
What should you care for more.

Cheeks are pink but sadness in eyes
You lit the candle but dark resides.
You are happy when busy
Got free now you are crazy.

Broken inside but you have to pretend
You are dying but need to sustain.
You are a child so can't expect
But as a child you have to respect.

You have family and society
You can relax, no fear or anxiety
But he murdered you with mere touch
You have family and society, can't say much.

Letting it go makes you easy
But wait...isn't h something fishy.

SO JUST REMEMBER

Shine like a diamond or be like a water
Peace inside your soul is what do matter.

Never Late

Shambhavi Kumari Mishra, *3rd Year, CFS, Gumla*

You are never too late,
But then never whole enough
You are never too ruined,
But then never pure enough
You are never too scared,
But then never brave enough
You are never too far,
But then never close enough
You are never fully there,
But then never you are really here
You are always somewhere in between.

HER

Kumari Kannu Priya, *8th Semester, TMAC, Godda*

By the time laying eyes on his little girl;
Holding her in his arms;
Taught her affection;
Fulfilling all her wishes;
The man who puts smile on his little girl,
Her first love -Father.
Growing up together;
Sharing tears , laughter and sadness;
Fighting with each other;
Understanding of their own secret language;
The man who protect her from the world,
Her heart keeper - Brother.
Make her heart flutter;
Staying by her side to the end;
Brightening her world;
Tolerating her insanity
Guiding her in every adversity;
The man who puts her needs first ,
Her sunshine – Husband.

Farmers – Pride of Our Country

Amrita Raj, *3rd Semester, TMAC, Godda*

Life without food,
Is like a tree without root,
Life without food,
Is like a bad dream come true.
Food comes from farm,
These farms make our country charm.
Our country's pride is hidden in farms,
But the growing population rings an alarm,
Farmers try their best to cultivate more,
For lost ship to become a sea shore,
These efforts will not be in vain,
One day the dryland will also have rain!
Thanks to farmers for growing food,
Thanks to farmers for giving our life tree roots!



Farmer, Thy Deeds

Vikash Kr. & Kaushik Kr., *8th Semester, TMAC, Godda*

In fields of toil, where dreams are sown, A hardworking farmer treads alone. His hands, calloused, weathered and strong, Toiling tirelessly, all year long.

From dawn's first light till evening's hush, He tends the soil with a steady brush. Planting seeds of hope, he nurtures each, With love and care, within his reach.

Through scorching summers and chilling cold, He labours on, his spirit bold. For in his heart, a sacred vow, To feed the world, he knows not how.

With humble pride, he perseveres, This noble farmer, quelling fears. For in his toil, a gift so grand, Nourishing all, across the land.

We owe our thanks, we owe our grace, To this unwavering source of embrace. The hardworking farmer, tireless and true, Feeding our souls, with each day anew.

The Inner Voice

Aakriti Tiwari, *5th Semester, TMAC, Godda*

It is, the inner voice— That belongs to me.
When no one is there, It listens to me. When silence is everywhere, It speaks to me.
When I become arrogant
For what I have,
I don't have the very quality, It shows me.
If I am an epitome,
Of being very proud, It questions me.
When there's darkness around
Or it is the dawn
To feel very sound
From all the ups and downs It sits always side by me.
It guides the path
That bicycle of life rides by me.
Either in solitude
Or in the crowd
From being inaudible to the loud,
The inner voice always
Tries to make myself proud.

What A Beautiful World it is

Prerna Bharty, *5th Semester, TMAC, Godda*

Oh how beautiful is the world. Where nature is chopped down
And burned to the ground.
Where plastic and trash covers the oceans atmosphere
While sea creatures die and tremble in fear
Oh how beautiful is the smell of polluted air
Where majority of people does not care
Oh how beautiful it is seeing religion fighting over their beliefs,
Yet still being hypocritical thieves
What a beautiful world it is,
Where politicians does not care about its people,
But greeds to rise into high power
What a beautiful world it is Where people gave up on humanity
And rely too much on the world's negativity
And finally.
what a beautiful dream it is
Where humans cease to exist
While flowers grow and nature fixes our mistakes,
Where every creatures can finally live in peace
With no humans contaminating any kinds of sickness or disease
What a beautiful world it is!

Future of Indian Farmers

Kartik Oraon, *8th Semsester, TMAC, Godda*

Farming isn't only the source of income for farmers, it's a vital pivot sustaining the life of billion people on this earth. Apparently then it's evident that farmers have a better life security.

However, there is lot of risk for good production of farm with outdated method. But this is also changing at pace with education ,a person takes under university for better understanding of difficult difficulties and solutions of field for any particular crop. Farmers always take another step together for better technology even when sometimes they don't believe the benefits for their own field implementation.

If taken into consideration farmers have a better future, since they have access to near by agriculture university for any kind of doubt, with soil related problems to which variety of crop is better in that particular month of the year. It's easy and the external agriculture department not only help the farmers with their query but also empathy help them with all disbelief and misconceptions about anything related to agriculture.

Day by day farmers are getting concerned about the higher production and sustainability.

And with the pandemic they knew that the only thing that can beat any other general production is farming . Because it provides the food for survival of people. So , farmers now take more interest in understanding the proper undertaking from the start of sowing to the end of harvesting and packaging. Therefore, increase not only the productivity but also their income generating capacity out of the credit they took from bank.

Indeed Farmers have a better future because if they are aware with nutritious value of the food and the market value they can get out of its production in a proper way.

Here, in farming mistake can be corrected within a year where in other venture it takes a lot to change things around the way one want. So, farmers can have better opportunities towards success of their crop and the return they get from their hard work.

Farmer's Suicides - An Issue of Great Concern

Rudra Narayan Banerjee, *3rd,Semester, TMAC, Godda*

India is an agricultural country with around 60% of its people depending directly or indirectly upon agriculture. Farmer suicides account for 11.2% of all suicides in India. In 2014, the National Crime Research Bureau of India reported 5,650 farmers suicide. The highest number of farmer suicides were recorded in 2004 when 18,241 farmers committed suicide. In the 1990s, India woke up to a spate of farmers suicide. The first state where suicides were reported was Maharashtra In beginning, it was believed that most of the suicides were happening among the cotton growers. However, it was not just the cotton farmers but farmers as a professional category were suffering . Reasons for farmer suicides are monsoon failure, high debt burdens, government policies, public mental health, personal issues and family problems. Among all of them, crop failure and debt traps are the major reasons. Steps taken by government to tackle farmer suicide are 70% cut in Monsanto's Royalties, Pradhan Mantri Sinchai Vojana, Krishi call centre, Kisan Credit Card, Pradhan Mantri Fasal Beema Yojana, relief to farmers in input subsidy, soil health card. Some suggestions to stop farmer suicide are that they need to de educated, agricultural universities need to be discover, new science - based practices and technologies; they need to be provided with fertilisers, pesticides, water and seeds in easier way and at minimum price. Farmers should be provided with technical support and farmers should be provided with direct instead of indirect subsidies.

Indian farmers have remained an ignored entity since 1991. Their hard work is seldom appreciated by their compatriots. Ironically, the people who provide us with food and cloth are deprived of it. Usually, a farmer is the only earning member in his family. His death then leaves his family and country in estuation.

Youth Engagement in Agriculture: Empowering the Future of Farming and Agricultural Entrepreneurship

Arjun Kumar Agarwal, *Ph.D. 2nd Sem, Deptt. of GPB, RAC, Ranchi*

Introduction : Agriculture, the backbone of our civilization, is facing a significant challenge: an aging farming population. As older generations retire, it is crucial to encourage and empower young people to pursue careers in farming and agricultural entrepreneurship. Engaging the youth in agriculture not only ensures the sustainable growth of the industry but also addresses issues such as food security, innovation, and rural development. In this article, we will explore the importance of youth involvement in agriculture, the barriers they face, and strategies to empower them for a promising future.

1. **Recognizing the Value of Youth Engagement :** The involvement of young people in agriculture brings fresh perspectives, innovative ideas, and a renewed passion for the field. They can contribute to improving farming techniques, adopting sustainable practices, and utilizing technology to enhance productivity. Youth engagement also revitalizes rural communities by creating employment opportunities, reducing urban migration, and fostering socio-economic development.

2. **Barriers and Challenges :** Despite the immense potential, young people often encounter barriers that discourage them from pursuing careers in agriculture. These barriers include limited access to education and training, lack of capital and resources, inadequate infrastructure, and the perception that agriculture is an outdated and unprofitable profession. Addressing these challenges is crucial to harnessing the enthusiasm and talent of young individuals interested in agriculture.

3. **Empowering Youth in Agriculture :**

   a) Education and Training: Enhancing agricultural education curricula to cover modern farming practices, sustainable techniques, and entrepreneurship. Establishing partnerships between educational institutions, agricultural organizations, and industry experts can provide practical training and mentorship opportunities.

   b) Access to Resources: Providing financial assistance, grants, and loans to young farmers and entrepreneurs to acquire land, machinery, and inputs. Government initiatives, private sector involvement, and microfinance institutions can play a significant role in providing access to resources.

   c) Technological Innovation: Promoting the adoption of advanced technologies such as precision agriculture, IoT devices, drones, and data analytics. Young people are often tech-savvy and can leverage these tools to improve efficiency, productivity, and sustainability in farming practices.

   d) Networking and Mentorship: Establishing networks, forums, and platforms that connect young farmers with experienced mentors, agricultural experts, and successful entrepreneurs. Mentorship programs can provide guidance, support, and inspiration, fostering a sense of belonging and enabling knowledge exchange.

   e) Policy Support: Governments should develop policies that recognize the

importance of youth engagement in agriculture and provide incentives such as tax breaks, subsidies, and favorable regulations. Encouraging partnerships between public and private sectors can create opportunities for young entrepreneurs to thrive.

4. **Changing Perceptions:** It is vital to change the perception that agriculture is a profession of last resort. Highlighting success stories of young farmers, showcasing the profitability and innovation in modern agriculture, and raising awareness about the importance of food security and sustainable farming practices can help shift societal attitudes towards agriculture as an attractive career option.

Conclusion: Youth engagement in agriculture holds immense potential to transform the farming landscape and secure our future food supply. By providing the necessary support, resources, and opportunities, we can empower the younger generation to pursue careers in farming and agricultural entrepreneurship. It is through their innovation, passion, and dedication that we can build a sustainable and prosperous agricultural sector for generations to come. Let us nurture and empower our young farmers, for they are the stewards of our food security and agricultural innovation.

The Key to Life and Eternal Happiness

Nivedit Deo, *8th Semester (Batch : 2019-20), RAC, Ranchi*

When the world as you know has collapsed around you, perhaps somebody has abandoned you, or, you may have simply lost sight of what you want from life leaving you wondering what is the secret of finding happiness once again.

The key to life and eternal happiness has been known to a selected few who have become some of the prominent figures of history, from Beethoven, Aristotle to Einstein, Gandhi to Shakespeare, etc. These prestigious people understood the secret laws and governed their lives and now you have the opportunity to discover this too.

The secret has been revealed and with its knowledge, we become the masters of our own universe. The secret is the law of Attraction.

It means that whether we realize or not, we are responsible for bringing both positive and negative inferences in our lives. The law of attraction encourages you to see that you can have the freedom to take control of how your future develops shaping it in the way you choose

"All that we are is a result of what we have thought." – *Lord Buddha*

Reality and everything around us is what we have created within our mind. Our minds are essentially in control of all that we see happening around us, we are completely capable of choosing which directions our life takes regardless of whatever our external circumstances may be.

Think of everything as being possible movements of consciousness that we are filling with our thought and emotions, bringing them into manifestations around us. The world is not independent of our thought and experience but are the subjects to our minds and we create them.

"It is nothing so called good or bad it is how we see them they are" - *William Shakespeare*

"You create your own universe as you go along" - *Winston Churchill*

Imagination is one of the most vital process. We can achieve all we want to justify by the power of our positive thought focused shortly in its direction. We can get everything by just attracting them and having faith.

"Take the first step in faith. You don't have

to see the whole staircase. Just take the first step." - *Martin Luther King Lee*

We don't need to worry about the process or how much time it would take. Believe that you already possess it and you will have it. You can get anything you wish- be it money, health, prosperity or a particular person. For example, if you want a cycle, go and browse the stores, select the particular one you want. And for it, visualization helps more, stick its picture on your vision board so that you see it every day, believe that you are certainly going to get it, feels as if you already own it. Imagine yourself riding it every day and it's all you have to do, don't have to worry about the money or anything else, leave that to the universe. Let it know what you want and you will have it. Be patient and have faith.

"What things so ever year desire when a play believe that year received them and ye shall have them." - *Mark 11:24*

Quantum physics also suggests that everything in our surrounding universe has stemmed from thoughts, with the human being functioning as the direct power source of everything we experience and see.

An experiment was done on an Olympic athlete, he was told to imagine and visualize that he was running on the tracks. Surprisingly he began sweating, his heart rate increased, the muscles in his legs tightened as if he was really running.

Only we have all to recognize the unfolding possibilities that are locked deep within us all - we would come to understand just how truly remarkable we are as human beings.

Just focus on your tasks and goals, leave all the tensions and worries behind to the supreme entity, our God.

"Always remember that the power that guides the stars guides you too." - *Lord PR Sarkar*

Don't ever forget what you are capable of - you are the author of your own life story, the painter of your own world, the sculptor of your own universe.

So, ASK, BELIEVE, RECEIVE.

The Portrait of a Lady

Vishalakshi Choubey, *8th Semester, College of Horticulture, Khuntpani (Chaibasa)*

In life there are some encounters that leave us blank and also leave behind so many questions that are never ever answered.

I remember one such instance where I had just reached Manali with my friend Akshat. He wanted to buy a heritage mansion that he could turn into a hotel. The lady who owned the property which Akshat had come to see,had died of a rare nerve disorder the previous year. She had left behind no children and so the property was put on sale.

It would be a very good buy for Akshat who was eagerly waiting to fulfill his long cherished dream of owning his own beautiful hotel. The mansion had a captivating charm about it and I wanted to explore the place.

My friend would indeed be lucky to be able to live in a place like this. I went in through an imposing and heavily carved doorway and marveled at the amazing beauty of the rooms. I checked the rooms at the different floors and I felt each one of them was unique. Wandering in and out of the splendid rooms, I found myself in an open courtyard behind the mansion. I turned around for a view of the house and I was tell spellbound by its quiet appeal. Something seemed to be tugging at my heart. I walked hurriedly to the place our car was parked in front of the drive way and drew out my canvas,paints and brush;things that I always carry along. I returned to the courtyard at the back. I set up the Canvas and looked around. Strange emotions and ideas arose in my mind. The beauty of the place looked like a beautiful lady and I became engrossed in my painting.

“Wow, who is she?” came Akshat's voice. He was standing right next to me. I looked at my watch. I did not realise that 2 hours had simply flown by while I had been painting. I look at Akshar and smiled, “I don't know” I said looking at the painting. It was a portrait of a lady and it looked so real!

“Anyways it's been two hours and we should leave now” said Akshat. I packed up my things and we left.

Next day my cell rang in the afternoon, “Hello” I said. “Hello,I am interested in paintings and I would like to buy some of your paintings. May I drop in today, say in an hour” said a female voice. “Oh yes! You may and I can show you some of my work” I said. I was pleased at the thought of a prospective buyer. In about an hour a lady appeared at my door. She was dressed in a black robe like dress with a half net veil covering her face. A Muslim lady perhaps,I thought,but didn't give much attention to her after that.

She came inside and I showed her many of my paintings. She stopped at the portrait of the unknown lady which I had made yesterday. “I would like to buy this one” she said. “Can you frame it and deliver it to my place tomorrow. I shall pay you tomorrow itself when I get the painting” she said. Seeing nothing wrong in it I agreed and then she left. The following day I reached the given address and an old man opened the door. He ask me in. I was strangely confused to see many more portraits of the same unknown lady there. I asked the man “So do you know who she is?”

“She is the owner of this house.” was the reply.

“May I meet her now if it's not a problem?” I questioned.

“I don't think so” he said, “She died last year”

“But I was asked to deliver this painting here and I got a call from this number 2233214” I said after searching the number from my cell.

“Yess this is our number but this phone has been dead since a year. This was eerie and I couldn’t stand there any longer. I hurried to my car and drove out of the driveway.

I was puzzled.

Just then an image on my side mirror caught my eyes.

The lady in the black robe who visited me yesterday,stood there just a little away from the gate.

I blinked hard feeling very strange. I was about to call out to her when the wind blew her veil away. As if in a daze,I noticed the strangest thing of all. She was the unknown lady from the portrait which I had drawn.

A-dog-able...!!!!

Amisha Jha, *1st Year, Ranchi Veterinary College, Ranchi*

We humans have a tendency to first look after ourselves,our families, relatives, friends and society but have we ever thought of animals who spend their threatening nights and shivering mornings in the streets? The answer is NO. Petting a German shepherd and a husky and a golden retriever is not a great thing but feeding the stray dogs who really need care is definitely called humanity. Seasons come and go and in this duration some stray animals lose their life Feeding a human for 3 years and feeding a stray dog for 3 days makes a lot of difference. Humans will forget the passage of time but dogs and animals will never disregard. This shows how gentle and loving they are. They understand our feelings but when it comes to us we refuse to respond. We have hospitals for treatment,we have food to eat,clothes to wear,blankets for warmth and shelter over our heads. But have we ever thought what dogs have or these stray animals have? When compared they have nothing except uneven words. Paths are their home and they lay in cold winter nights and freezy mornings shivering,but no one is there to look after them. The unbearable cold leads to their death. We should feel pity for these speechless living beings. They do not have words to express their feelings but they have emotions. They have a feeling to express their pain. Therefore we should at least try to look towards the stray dogs living around us because there is no one for them This small step of compassion and love will raise awareness among humans and feelings of sympathy. Always remember the one with explained words deserves more love and care whether it is an animal or a human. Dogs cry when they see you crying,they stand by you during your tough times,they smile on your success and they cry the most when they lose any of the family member because they have feelings. They feel the pangs of separation just as humans do. Dogs are more honest than humans although they are speechless,yet they feel. We have words still we are CRUEL. Be good and compassionate to everyone whether it is animals or humans..... and thus dogs prove the proverb: "Action speaks louder than voice!"

"Dogs do speak but only to those who know how to listen."

"Our Change the Climate Campaign"

Daniel Kandulna, *5th Semester, RNTAC, Deoghar*

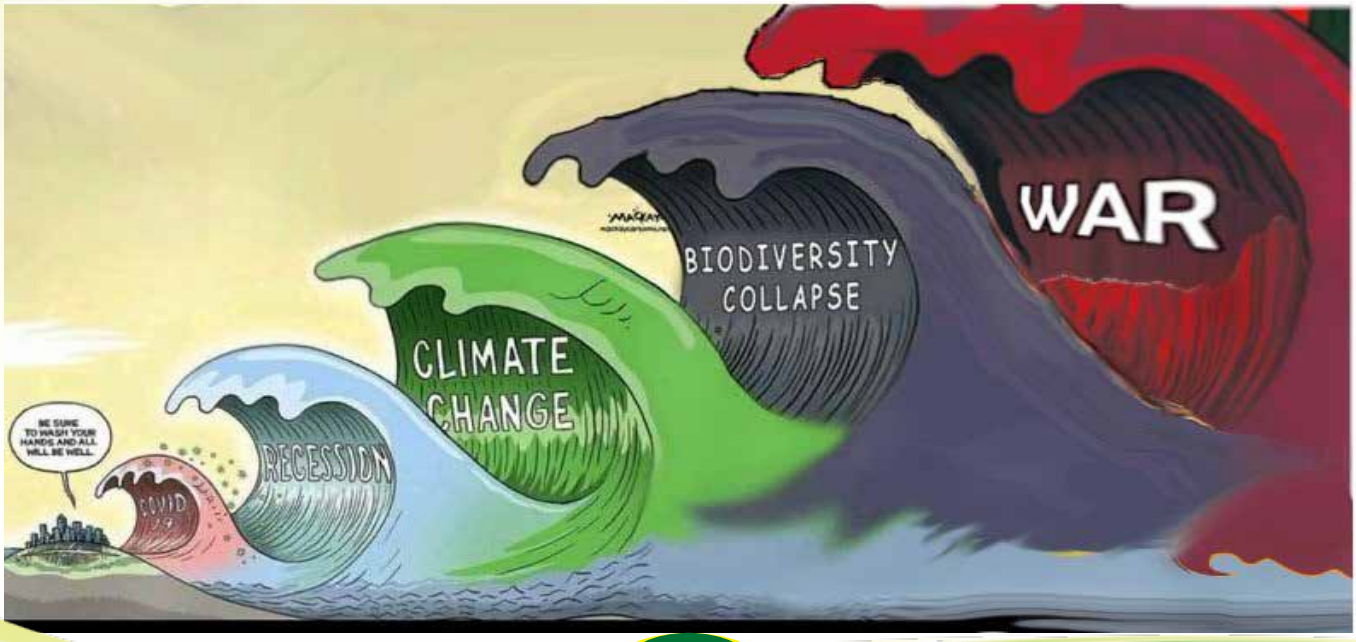
Climate change is having an adverse effect on the people of India and its economy. A 2019 study by Stanford University showed that India's economy is 31 percent smaller than it would have been in the absence of global warming. At the forefront of these risks are farmers, in north Indian states such as Haryana and Punjab, crop yields will decline by 15 to 17 percent for every 2 degrees centigrade increase in temperature. To combat some of these risks, the Indian government aims to have around 33 percent of tree cover by 2030. At the end of 2019, tree cover stood at about 24 percent. Out of this, about 22 percent was from government-controlled forests, while around 2 percent came from agro-forestry - farming practices that incorporate trees among crops. "Our change the climate campaign" aims to work towards making up for the remaining 9 percent of target forest cover and help farmers restore biodiversity in farms.

After detailed farm surveys, soil sampling and water testing, farmers are chosen and farms are readied for tree-planting. Tree species are chosen by scientists and progressive local farmers, while sowing and nurturing techniques follow scientific principles to ensure survival.

These trees will provide farmers with extra income, as well as restore biodiversity in their farms through a variety of trees -- timber, fruits, flower, herbs and shrubs. This extra income makes farmers resilient and more open to chemical-free farming, which is especially key to our work in Bhatinda, Punjab, which has been dubbed the cancer belt of India because of excessive chemical use. Donors will have transparency through a QR code for each lot of 10,000 saplings. This QR includes GPS locations of farms, the plantation journey, quarterly monitoring reports and impact statistics on soil and carbon.

Issues impacting agriculture identified in the survey include: Supplying the growing global demand for commodities arising from developing economies and world population growth, Availability and price of land for expansions, new government mandates and regulations, Stability, development, and fluctuations in global financial market, Impact of global trade policies on food security and the supply and demand for commodities and Development and use of bio-based fuels.

Small interventions like there can in small but significant way help mitigate climate change and will be a stepping stone towards a better future.



Climate Smart Agriculture

Manisha Mahto, *5th Semester, RNTAC, Deoghar*

INTRODUCTION

Climate smart agriculture was developed by FAO as a unified approach to address the challenges of climate change. Climate change is turning the farmers upside down. Unpredictable weather patterns, droughts, extreme temperatures and increased pest and crop diseases causes problems to small land farmers. A growing global population and changing diets are driving up the demand for food. Production is struggling to keep up as crop yields level off in many parts of the world, ocean health declines, and natural resources including soils, water, and biodiversity are stretched dangerously thin. The food security challenge will only become more difficult, as the world will need to produce to feed an estimated billions of people. Climate change's negative impacts are already being felt, in the form of increasing temperatures, weather variability, shifting agroecosystem boundaries, invasive crops and pests, and more frequent extreme weather events. On farms, climate change is reducing crop yields, the nutritional quality of major cereals, and lowering livestock productivity. Substantial investments in adaptation will be required to maintain current yields and to achieve production and food quality increases to meet demand.

Agriculture is a major part of the climate problem. Without action, that percentage could rise substantially as other sectors reduce their emissions. Additionally, 1/3 of food produced globally is either lost or wasted. Addressing food loss and waste is critical to helping meet climate goals and reduce stress on the environment.

Climate smart agriculture (CSA) is an integrated approach to managing landscapes-cropland, livestock, forests and fisheries that address the interlinked challenges of food security and climate change. Climate smart agriculture techniques can help farmers adapt to and prepare for impacts in order to preserve and even improve their livelihoods. The first step is to assess the climate risks. Where drought and prolonged dry season are the main risks, a climate smart approach might focus on planting cover crops or mulching to improve soil structure, water infiltration and retention and overall soil fertility. In place where the risks are heavy rain and flooding, a climate smart agriculture would likely focus on trenching, planting cover crops and controlling surface water runoff with activities like vegetation barriers. CSA is a key to sustainability.

CHALLANGES POSED BY CLIMATE CHANGE TO INDIAN AGRICULTURE

- Reduces yields: due to higher temperature - encouraging weed and pest proliferation.
- Higher incidence of plant diseases: due to higher temperature.
- Variations in rainfall due to climate change.

THREE PILLARS OF CSA

Food Security: -

- CSA aims to sustainably raise agricultural productivity and incomes from agricultural and allied activities while balancing environment. concerns relating to the environment.
- It aims to promote food and nutrition security.
- A key concept related to raising productivity is sustainable intensification, described as "an approach using innovations to increase productivity on existing agricultural land with positive environmental and social impacts.

Adaptation: -

- CSA aims to reduce the exposure of farmers to short- term risks, while also strengthening their resilience by building their capacity to adapt and prosper in the face of shocks and longer-term stresses

Mitigation: -

- The minimization of emissions and the maximization of carbon capture is a core concern of CSA.
- The prevention of deforestation, adoption of sustainable practices, and the management of soils and trees in ways that maximize

their potential to act as carbon sinks and absorb carbon from the atmosphere is a part of the mitigation strategy.

CHARACTERISTICS OF CSA

- Attempts to address climate change's causes and effects.
- Integrates multiple goals and manages multiple trade-offs.
- Maintaining ecosystem services.
- Multiple interventions points at different levels.
- Involves the marginalized.

GOVERNMENT INITIATIVES

1. National Innovations on Climate Resilient Agriculture
2. National Mission for Sustainable Agriculture
3. National Adaptation Fund for Climate Change
4. Pradhan Mantri Krishi Sinchayee Yojna
5. Zero Budget natural Farming
6. Paramparagat Krishi Vikas Yojana

Impact of Climate Smart Agriculture

Tabrej Ahmad, *3rd Semester, RNTAC, Deoghar*

Climate smart agriculture (CSA) means performing agricultural activities based on climate changes, rather performing smart agriculture. As we know agriculture accounts for 2/3rd of the population of our country, who are directly or indirectly dependent on agriculture. Agriculture also accounts for 33% of the country's GDP which indeed is a huge number. It was none other than the green revolution which took place in the 1960s which gave a boost to the agricultural products grown with the help of HYV (high yield variety) seeds. There were many semi dwarf varieties of rice and wheat developed after green revolution. When we talk about climate smart agriculture (CSA) it serves 3 objectives. These are

1. Large production of crops.
2. Generate good revenue for farmers
3. Reduce emission of greenhouse gases (CO2 CH4 N2O CFC)

Hence these can also be called as triple wins.

Climate smart agriculture is performed based on climate conditions of any place. For these records are taken of the weather conditions of preceding years just to know the fluctuations of the weather. As we can see that we are yet to receive rainfall despite monsoons are nearby. So, it becomes very necessary to note the weather forecast as most of the Indian farmers are marginal farmers who depend on rainfall for agriculture.

Major impacts of CSA

1. If CSA is done properly it may lead to huge production which ultimately leads to more revenue
2. More revenue leads to better living conditions which will affect the future generations of the farmers
3. By performing CSA greenhouse gases emission is reduced as external factors are not involved i.e., there is no or minimum involvement of carbon emission objects be it tractors or other equipments which are required when we do not take climate into consideration
4. More revenue ultimately leads to increase in country's GDP, which ultimately decides acountry's progress among other countries. (rank or position)

India is malnourished country where many of the people come under Below poverty line (BPL). To feed such a starving population we cannot depend upon traditional agriculture practices. In order to fulfill such huge demands we need smart agriculture to be done as it is said "it is not te hardwork which decides our success it is the smart work which matters the most " . Similarly smart agriculture will decide our fate. It is the climate smart agriculture which will be valued in the future due to such population explosion (which is nearing to 1.5 billion) and will ultimately cross China and become most populous country of the world.


Drone Technology In Agriculture

Bhagyashree, *3rd Semester, TMAC, Godda*

Everyone is getting updated to new generation from people's computer to their clothes. So why agriculture will lag behind recently Indian government gave a new view to agriculture by introducing drone technology in agriculture sector. Although Indian govt is working hard in agriculture sector by introducing different schemes to it. Here I have some interesting benefits to share about the use of drone technology in agriculture.

1) Fast Data Acquisition for Accurate Farm Analysis

Through a method called drone photogrammetry, drones can help farmers and agronomists create highly accurate maps and 3D models of the area. With drone mapping software such as Pix4DFields or Drone Deploy, images captured by drones can be stitched together to get a topographical map of the farmland. Drones can be fitted with different types of cameras like RGB, multispectral and thermal cameras that will allow farmers to gain access to different forms of data. Data from these maps will help farmers make necessary adjustments to ensure that the land stays healthy and productive.

2) Time & Cost Saving

One of the main benefits of using smart technology in agriculture is the reduced time it takes to complete many tasks. Drones are much more time-efficient than manned aircraft for things like mapping, surveillance, and crop spraying. Drones are also used to plant seeds, spray crops with water, fertilisers, pesticides and herbicides.

3) Improved Crop Yields

Drones allow farmers to obtain crop data fast and frequently, this keeps them on top of things like irrigation issues, plant disease and soil condition. All these things need to be at optimal conditions for crops to thrive and farmers can meet crop yield expectations. Through precision agriculture, farmers and agronomists can improve overall crop yield by data-driven variable rate prescription. By using remote sensing technology, farmers will easily be able to identify areas of the field that are not producing healthy crops, find out what the problem is and only target that area for any treatment that may be required. This will improve the overall quality of the crops, improve yield and save money in the long term.

4) Safer Way to Spray Crops

Pests and plant disease are always going to be an issue for farmers, spraying chemicals manually will always pose a health hazard and is very time-consuming and labour-intensive. Using drones to treat infected plants is much safer and more efficient than manual labour and using land-based machinery. Smart drones also come with autonomous flight modes to plan flight paths only around areas that need to be treated & leave the healthy parts of field free.

5) Helping Fight Climate Change

By reducing the use of chemicals through data-driven targeted treatment and reducing the need fossil fuel as drones are powered by intelligent batteries, drones can help reduce pollution, help the environment and help in the fight against climate change.

6) Can increase dignity of farmers in the society:-

Tech literate farmers will be more dignified and will attract the youth too.



India : World's 2nd Largest Agriculture Economy

Nivedit Deo, *8th Semester, RAC, Ranchi*

In the words of Thomas Jefferson, "Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals & happiness." My grandfather used to say that once in your life you need a doctor, a lawyer, a policeman, and a priest. But every day, three times a day, you need a farmer. Agriculture is the most important sector of our economy as it provides employment to about more than half of our population. It has made us self-sufficient and taken us from being a begging bowl nation for food just after independence to a net exporter of agriculture and allied products. The story of the rise of Indian agriculture through the years is one of most inspiring. When the British ruled our motherland , they focused only about their profits , so they compelled our farmers to grow cash crops like cotton , Indigo ,etc. Due to the very reason ,India's food grain production was severely compromised. As a result , after Independence we were dependent on food grain imports from other countries to fulfill our dietary needs to survive. In 1954, then US President Eisenhower launched the Public Law 480 (PL-480) or "Food for Peace" programme. It was an initiative to offload all the excess wheat that the US had cultivated with price support. The US also started using it as a tool of diplomacy, because when another nation is dependent on you for its food, you can easily compel it into submission. It was however realized by India in the mid-1960s as a means of diplomatic interference. At one point, the US even came close to rejecting wheat shipments to India, which threatened to push the country to the brink of famine. Ultimately, India achieved self-sufficiency in agriculture through the green revolution and shake off dependence on American wheat.

A quick look:

Agriculture is one of the most important sectors of the Indian Economy due to:-

- Its Contribution in GDP – In 1950-1951, agriculture and other related activities had a share of 59% of the country's total GDP . Although there is a constant drop in the agriculture sector due to increase in development of other sectors, it is still one of the most crucial sectors in the Indian Economy.
- Largest Employee Sector - which has more than half of the total population of the country engaged, which makes it the sector with the most number of employees in the country.
- Source of Food -India is the second-most populous country in the world. And to feed such a huge population, there is always a constant need for sufficient supply of food.
- Relation between Agricultural and Industrial sector- The need for raw materials for maximum industries is fulfilled directly from the agricultural fields.
- Commercial Significance- Agro-products such as tea, coffee, sugar, cashew nuts, spices, etc., which are edible and textile products such as jute, cotton, and others contribute 50% and 20% respectively to the total export of the total country. These

add up to around 70% of the country's total export and help the country in earning foreign exchange.

- Contribution to the Government's Revenue-Agriculture is the most significant source of income for the central and state governments.

Indian Agriculture is now the 2nd largest agriculture economy on this planet. We have come a long way through an inspirational success of green revolution under Dr.MS Swaminathan. Total food grain production in the country is estimated to be a record 315.72 million tonnes, in 2021-22. This is news to be happy about but as per the estimates of Indian Council for Agricultural Research (ICAR), demand for food grain would increase to 345 million tonnes by 2030. It simply means we have to continue our efforts to add newer details to this inspirational story of ours. Agriculture provides employment opportunities to rural agricultural and non-agricultural laborers. It plays a significant role in international trade and import and export activities.

Our nation is an Agricultural superpower and soon it will become the world's largest agriculture economy on the face of Earth. Today , India is the world's largest producer of milk, pulses and jute, and ranks as the second largest producer of rice, wheat, sugarcane, groundnut, vegetables, fruit and cotton. It is also one of the leading producers of spices, fish, poultry, livestock and plantation crops. It's a general notion that countries with Agricultural economy are poor but that's not the complete truth. India with her exceptional skills in agriculture was known as the golden bird of the world in the ancient times. It is well said by William Shakespeare. "There's nothing so called good or bad, it is how we see them they are." Increasing population, increasing average income and globalization effects in India will increase demand for quantity, quality and nutritious food, and variety of food. Therefore, pressure on decreasing available cultivable land to produce more quantity, variety and quality of food will keep on increasing. India is blessed with large arable land with 15 agro-climatic zones as defined by ICAR, having almost all types of weather conditions, soil types and capable of growing a variety of crops. So, the golden time for Indian agriculture is to come , when it becomes a major earner for the Indian Economy. The future of Indian agriculture promises to be even brighter if we work on cost-effective technologies with environmental protection and on conserving our natural resources. I would like to conclude in the words of the father of green revolution of India , Dr. MS Swaminathan, "If agriculture goes wrong , nothing else will have a chance to go right."

Impact of Climate Smart Agriculture

Priti Kumari, *5th Semester, RNTAC , Deoghar*

India is a large country with diverse climate, seasons, crops and farming systems. Climate plays a important role in the production of crops in our country. 2/3rd of India is rain dependent and India gets around 70% of its annual rainfall during the monsoon season. Around 50% of households in India are dependent on agriculture for their livelihood. Agriculture contributes 16% of India's GDP.

As Nowadays we have seen due to climate change there is substantial loss in the yield of crops due to climate change irregular monsoon etc. Most of the population of our country lives in rural areas where, agriculture is the main of source Income of farmers. The majority farmers of the country depends on monsoon rainfall for the Irrigation of their fields. Due to continuos change in climate, the farmers (majority which are small/ marginal farmers) faces loss in crop yield which they cannot bear resulting in suicide or death in many cases as they are overburdened by loans which they cannot repay. So there is a need of climate smart agriculture in today's time.

Climate-smart agriculture is an approach for transforming and reorienting agricultural production systems and food value chains so that they support sustainable development and can ensure food security under climate change, climate-smart agriculture has three main objectives:

1. Sustainbly increase agricultural productivity and incomes;
2. Adapt and build resilience to climate change.
3. Build and/or remove greenhouse gas emissions, where possible.

How climate affects the Indian agriculture?

- Drought : India is highly dependent on monsoon and with 85% of small and marginal landholdings, it is highly sensitive to climate change and its effects.
- Nutritional loss : Rising levels of atmospheric CO_2 minimize the concentrations of protein and essential minerals in most plant species, including wheat, soybeans, and rice etc.
- Depleting farmlands and water levels: rising sea level may result in loss of farmland by inundation and increasing salinity of groundwater in coastal areas. Changes in precipitation levels and falling groundwater tables depletes water availability.
- Loss of income: loss in income of farmers over the years resulting the farmers to leave agriculture as their primary occupation and compelling them to pursue some other jobs.
- Heat waves: caused by global warming affect crops, aquatic systems, and livestock.

The World bank report warned that by 2040s, India would see a considerable reduction in crop yields due to extreme heat.

To overcome all such problems above mentioned we need a smart approach which is called Climate Smart Agriculture. The principal goal of CSA is identified as food security and development, while productivity, adaptation, and mitigation are identified as the three interlinked pillars necessary for achieving this goal.

Key initiatives taken by government to promote Climate Smart Agriculture, some of them are:-

Initiatives like PM Krishi Sinchayee Yojana (Agri productivity), PM Fasal Bima Yojana (Agri Insurance), Soil Health Card, Paramparagat Krishi Vikas Yojana (Organic farming), National Agriculture Market (e-NAM) and other rural development programmes are positive interventions.

What steps are needed?

- The initiatives have been marred by lack

of funds, poor implementation etc. which needs to be solved.

- In addition to traditional wisdom, farm extension services and climate resilient techs should guide farmers' responses.
- The climate resilient techniques include the solar pump, drip irrigation, and sprinklers which involves minimum consumption of electricity and water could be utilized.
- Precision farming techniques could be adopted for improving productivity, quality, and profitability in Indian agriculture.
- Adoption of Zero Budget Natural Farming.
- Climate change mitigation in agriculture should also involve proper agronomic management practices like intercropping, multi-cropping and crop-rotation at the field level.
- Applying farmyard manure, compost or by practicing organic farming could improve the soil organic matter which can help in the improvement of soil health.
- Using HYV seeds,Using drought tolerant crops.
- Doing rain water harvesting.

Along with these the government of India should also start promoting the farmers to adopt CSA.

Start teaching ad training programs about climate smart agriculture. Hence there is an urgent need to educate farmers by providing Krishi Vigyan Kendras with more funds for climate change and risk mitigating measures.

- Provide the farmers with loans and other scheme so that farmers start practicing CSA.
- Collaborating with farmers and food processors for their good income.
- Introducing them with the benefits of adopting CSA

These are some ways farmers can be benefited by adopting CSA and can double their income in the present time and in future through a smart approach that is called is Climate Smart Agriculture.

The Resurgence of Semesters

Sujit Kumar, *RVC, Ranchi*

Semesters may be returning!!! YES the semester system for academic year may be soon re-implemented in the B.V.Sc. & A.H course.

For those wondering, the semester system was replaced by annual system in the veterinary courses form the year 2016 onwards.

But this news had raised the inevitable question... "Is it better then the ongoing annual system?"

For students like myself, who are currently undertaking the B.V.Sc. & A.H. course, Semester System is a thing of past.. something that we hear only by some seniors and professors(usually in reminiscence).

The answer to this question is highly subjective and has many aspects to it. You have to consider the pros and cons of both system before negating the annual system, which has been followed since so long in almost all schools and many colleges.

INTRODUCTION:

While both systems have their own merits, they differ significantly in terms of structure, benefits, and drawbacks. In this article, let's explore, compare and learn about the semester system and annual system to help you understand their features and make an informed and thoughtful choice.

For those who are unacquainted, Semester system basically implies the division of an academic year in 2 halves, and exams being conducted at the end of each semester while the annual system doesn't divides the academic

year and the whole syllabus is completed in one go with few minor assessment conducted every 2-3 months followed by the final examinations. (Just like we had in schools).

SEMESTER SYSTEM:

The semester system divides the academic year into two terms or semesters. Each semester typically lasts for around 15-18 weeks. Students undertake a specific set of courses during each semester, which allows for focused learning and better organisation of the curriculum.

At the end of each semester, students are assessed through examinations, projects and often a combination of both.

Advantages:

Balanced Workload: The semester system divides the curriculum into manageable chunks, reducing the workload on students. It enables them to focus on a limited number of courses at a time, ensuring a more comprehensive understanding of the subjects.

Improved Time Management: The shorter duration of semesters encourages the students to manage their time effectively. They need to plan and organise their studies, assignments, and exams, within a relatively short time frame, promoting better time management skills.

Frequent Evaluation: Semester based assessments provide regular feedback to students. This helps in identifying their strengths and weaknesses promptly, enabling them to make necessary improvements. Moreover, continuous evaluation reduced the pressure of high- stakes exams at the end of the year, which depresses many students.

Continuity with the subjects: The syllabus of a subject is divided in different semesters which are taught across different years. This ensures that students keep in touch with the subject and also is more fun to study.

Disadvantages:

Faster Pace: Some might argue that the timeframe of semesters can lead to a faster pace of learning. Some students may feel overwhelmed by the accelerated pace and workloads.

Limited Time For Remediation: If a student struggles with a particular topic during a semester, there is limited time available for remediation before the semester exams.

ANNUAL SYSTEM:

The annual system, as the name suggests, spans an entire academic years, with final exams held separately at the end of year. Students enrol in their chosen subjects at the beginning of the year and attend classes for the entire duration until final examinations are held.

Advantages:

Comprehensive Coverage: The annual system allows for a more comprehensive coverage of subjects as the courses are spread over a long duration, providing students with a deeper understanding of the materials.

Time for Immersion: With more extended periods dedicated to each subject, students have the opportunity to immerse themselves in the topic, conduct research, and explore additional resources. Students have a clear understanding of their entire academic year and they can effectively plan their study schedules better.

Comprehensive Assessments: In the annual system, final examinations typically carry a significant weightage as they cover the entire year's curriculum. While this may create additional pressure(and believe me it does), it also provides an opportunity for students to demonstrate their understanding of the subjects and score better grades.

Disadvantages:

Increased Academic Pressure: The annual system often results in a concentrated workload during the final exams and since the entire year's syllabus is covered in a single set of examinations, students may face heightened stress and pressure.

Difficulty in maintaining continuity: Since

the whole syllabus of a subject in completed in a year, students normally do not revisit the topics and leave the subjects with passing years.

Monotonous Classes: Since there is no change in semester, the subjects to be taught remain same throughout the year, this may make the classes very monotonous and boring.

Not Enough Time For Students: Since the whole syllabus is to be covered in a year, students often are overburdened by workload and don't get enough time to read different books.

Inadequate Revision Time: Since students have to cover the entire syllabus, the time is just not enough, students find it challenging to revise and study the topics and instead just mug up right before examination, due to which they soon forget what they've learned.

SUMMARY:

Both the systems have their advantages and limitations. While the fast paced semester system offers benefits of focused concentration, enhanced flexibility and continuous assessment, the annual system provides comprehensive coverage and time for in-depth study and reduced transition time with a single long break at the end of year, but the cumulative pressure in the final exams can sometimes be a little to stressful for the students.

WHAT PEOPLE THINK?

I went around asking the same question "Semester vs. Annual System.. which one do you think is better?" to a bunch of people with experience and the grave majority were in favour of the semester system.

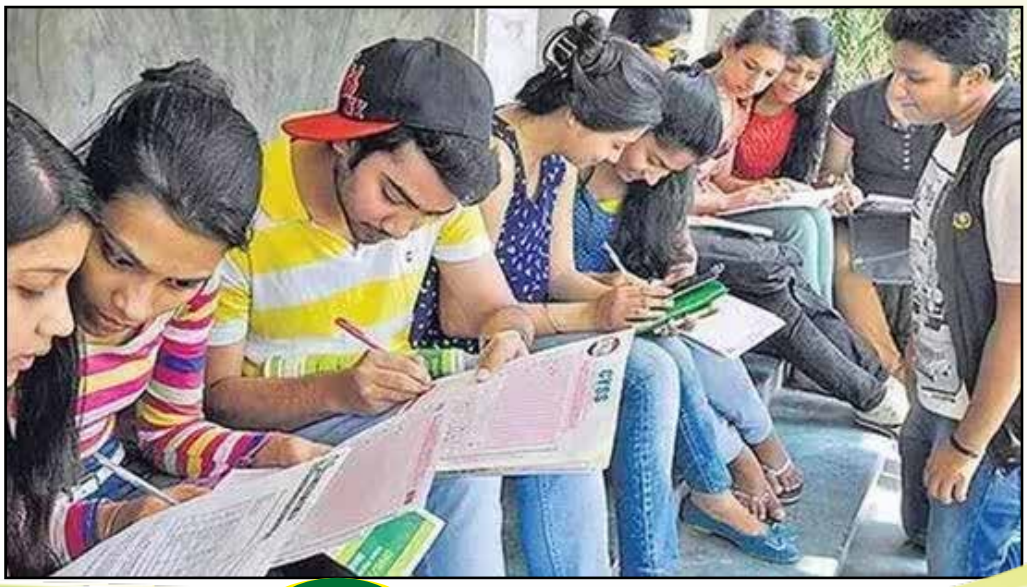
My seniors said it (semester system) provided a much better studying experience and less stressful exam environment and the professors said it provides them with more time to discuss the topics much freely and practically, as these days (in annual system) they are often bound by time and sometimes even forced to compromise the less important topics for the more exam oriented ones, as their main priority becomes the timely completion of syllabus.

WHAT I THINK?

As a student who follows the annual system curriculum, I know the annual system a lot better, and have only heard about the semester system from my seniors, elders and teachers(tough positive points only).But hey, no student can experience both at the same time.. can he?

So being not much knowledge, I humbly think that semester system is better for learning the topics and concepts of the syllabus. And this may be the typical "Grass is greener on the other side" thinking, but I still think semester system is much better oriented for colleges and universities conferring higher educations.

Although, not everyone would agree with me, and many of my friends prefer the annual system and even argue that it is better and even has better chances of scoring high grades, still in my opinion I think semester system is much better for higher education.



Mastering The Mind

"Cognitive Techniques for Efficient Students"

Sujit Kumar, *RVC, Ranchi*

Despite investing countless hours into studying, the progress made feels disappointingly small. Have you ever felt this? I sure did, that too way many times.

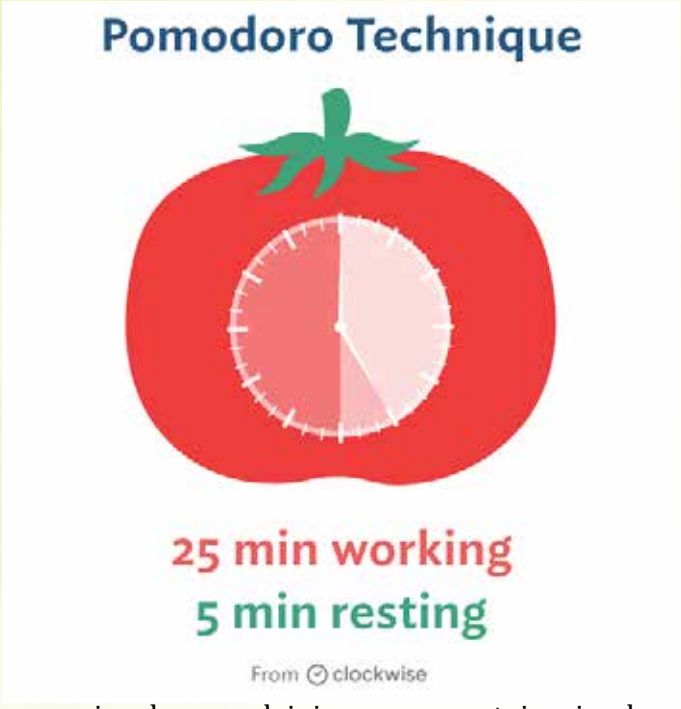
I would often study for hours and decide to complete certain things in that time, but often(and almost always) was not able to complete my work or even make a significant progress. At the end it left me with frustration and unsatisfactory feeling which would often ruin my day.

This is a common problem for many students, and I realised that it was not the lack of hard work or procrastination, but the inefficient and boring studying methods, that often makes it tedious.

Here are some creative methods and techniques(well studied and proven by research) that may help you to achieve better results in the same time or even less:

1. **POMODORO TECHNIQUE:** The Pomodoro technique involves breaking your study time into intervals usually 25 minutes long, called "Pomodoros". After each Pomodoro, take a short break of 5 minutes. After completing four Pomodoros, take a longer break of around 15-30 minutes. This technique helps improve focus and productivity by working in short bursts.

2. **FEYNMAN TECHNIQUE:** Named after the physicist Richard Feynman, This technique involves explaining a concept in simple terms, as if you were teaching to someone else. By doing so, you identify gaps in your understanding and reinforce your knowledge.



3. **CORNELL METHOD:** The cornell method is a note taking technique developed at cornell university. It involves dividing your note paper into specific sections, including a main notes section, a cue column for key points or questions, and a summary section. This method promotes active listening, comprehension and effective review.

4. **SQ3R METHOD:** The SQ3R method developed by Francis P. Robinson, stands for Survey, Question, Read, Recite and Review. It is a structures approach to reading and studying textbooks. It involves surveying the chapter, formulating questions, reading actively, reciting key information, and reviewing the materials to reinforce learning.

5. **LUMOS TECHNIQUE:** Inspired by the "lumos" spell in Harry Potter series, this technique involves shedding light on your learning process. Begin by setting clear goals and objective for each study session. The use visual aids like flashcards, diagrams, or colourful notes to illuminate the key concepts and make them more memorable.
6. **LEITNER SYSTEM:** The Leitner System, developed by Sebastian Leitner, is a flashcard- based technique for spaced repetition learning. It involves organising flashcards into different boxes based on the learner's familiarity with the content. Cards that are correctly answered are moved to a less frequently reviewed box, while those answered incorrectly are returned to a more frequently reviewed box.
7. **ZENFOCUS TECHNIQUE:** This technique combines elements of mindfulness and focused studying. Create a calm and distraction- free environment, practice deep breathing and visualisation techniques to relax your mind and then engage in concentrated study sessions with full attention and presence.

- I sincerely hope some of these helps you

with you studies. I personally love the Pomodoro and Feynman techniques, and I always use the Zenfocus Technique during the exams, and trust me it works wonders.

- **MEMOIR:**

I myself struggle a lot with time management, even in day to day life. Sometimes it irritates the hell out of me, but what we need to remember is none of us are perfect, so allow yourself to make mistakes, but do learn from them. Someone once said-" A mistake is only a mistake until you learn something from it, then it becomes a lesson".

So try to thrive everyday to become abetter version of yourself and even if you fail, **It'll Be Okay.**

Astro Botany : Beyond the Space

Malay Kishor Mahato, *Batch : 2020-21, College of Agriculture, Garhwa*

The urge to feed the hunger has no boundary, not even the planet across the solar system could venture in its path. To overcome the hunger one needs food, and to get food, plants are needed to be cultivated in a field, and in order to grow a plant at an unknown type of soil, this is where Astrobotany comes into the picture.

Astrobotany is simply the study of plants life and plant interactions in space environments. This includes understanding plant response for human spaceflight as well the possibility of plant life on other planets. Soviet Astronomer Gavriil Adrianovich Tikhov was the one who coined the term and put forward the concept and idea. On Earth, the pigments that plant use for photosynthesis reflect red light (700-750nm). His idea was that if we could detect and analyze the starlight from other planets (called plantshine / plantlight), a spike in the spectrum at 700-750nm (known as "Vegetation's Red Edge") which would indicate Green Vegetation on the planet surface.

The eagerness to know more and learn about it came from the famous movie "The Martian" starred by Academy award winner 'Matt Damon' and directed by well known Sir Ridley Scott. The plot depicted that how an individual can survive in an extremely adverse condition than that of the Earth. He was left alone still he somehow managed to survive by literally cultivating POTATO in a planet like Mars. That was the turning point for me which increased my eagerness to explore the space even more.

Although, Modern Astrobotany focuses on using model to predict the habitability of explants and searching for evidences of microbial life, however development of Remote Sensing Technology has been useful in analyzing vegetation on Earth, providing data useful for farmers in growing crops more efficiently.

Soviet rocket scientist Konstantin Eduardovich Tsiolkovsky was one of the first people to talk about growing plants in space. Obviously, to be able to grow plants in space, one needs to be able to spend a reasonable amount of time in space. The time needed to adapt and letting the potential of seed to come out of its comfort zone. So finally, the seeds were sent up on early rockets, and some even travelled to the moon where the first attempts to grow plants in space: flax, leek, onion and chinese cabbage. The first plant that flowered and produced seed wasn't a crop, but the tiny Arabidopsis thaliana. For nearly 20 years now, we have had a continuous human presence on the International Space Station which allowed us to do more experiments. The one that gets the most press is veggie, which grows fresh salads for the astronauts ultimately focusing to feed astronauts for long duration missions to Moon and Mars.

It may seem like an easy peasy go journey for plants to grow even at a completely different physical and chemical condition. Yes, there are challenges too, which may occur when growing plants in space. During spaceflight, plants experience a unique environment that poses challenges different than those on the Earth. Microgravity, oxidative stress, cold stress and ionizing radiation are just some of the factors of space that impact plant biology. These stressors can affect root growth, nutrient capture and others and subsequently changes the way that plant must be handled. Through it we can realize that science of space is an endless sea, the more one goes deeper the more they find something new.

Although it may not seem a new and interesting concept to know, learn and study Astro Botany, but it opens the door for our learning beyond the boundaries named Space. People may not understand its true mean but upcoming decades where the talk is being done to inhabit the Mars or Moon, Astro botany will stand as a strong pillar to fulfill one of the basic 3 necessities (roti, kapda aur makaan) of an individual i.e; Roti or can simply be said as food. Till then, hope for the best.



International Year of Millets : 2023

Nikita Singh, *5th Semester, College of Agriculture, Garhwa*

International year of Millet 2023: Building momentum for the year. With this as scenery, the Government of India determined to situate itself as a worldwide center for millet and proposed to FAO to pronounce 2023 as the **'Global Year of Millet'** which was upheld by 72 nations. The United Nations General Assembly at its 75th meeting supported the proposition and proclaimed the year 2023 as the Global Year of Millet on 5th March 2021.

Millets also called "CEREALS OF POOR PEOPLE" or "NUTRI-CEREALS" is a significant wellspring of food and grain for many unfortunate farmers and are healthfully better than wheat and rice. They are additionally alluded to as **'coarse grains'** because of their harsh outside structure. Millets are an aggregate gathering of little cultivated yearly grasses that are developed as grain crops. A portion of the normal millets accessible in India are Ragi (Finger millet), Jowar (Sorghum), Sama (Little millet), Bajra (Pearl millet), and Variga (Proso millet). It is generally consumed in agricultural nations all through Africa and Asia. Millet assumes a fundamental part in the ecological and economic security of India.

India positions 64 among the 81 countries according to the Worldwide Yearning List. It possesses the second spot in youngster malnutrition. The underlying reason is that the spotlight has been exclusively on wheat and rice appropriation while the millets which are wealthy in micronutrients have for some time been dismissed. Contrasted with white rice or wheat, millets are high in dietary fiber, protein, iron, and calcium and control glucose and cholesterol levels. Their high-fiber content aids in solid discharge and oversees diabetes and obesity. Their high magnesium level is great for bringing down circulatory strain, and their high iron substance assists with combatting the lack of iron, while the potassium content keeps hypertension under control.

Amid its different advantages, still millets lost inclination over the past few years which is essentially a direct result of the Green Revolution which focused on the creation of wheat and rice to settle the food lack issue after freedom. Request creation plays likewise a significant part in the diminished creation of millets. Since, in such a case individuals love to have rice or wheat and don't respect millet which might be because of its not-so-great taste or the tag of 'poor man's food', then, at that point, no value contrast can cause them to eat millet.

Presently it is the right time to release the capability of millets by making familiarity with the dietary benefits to empower a change in customer choices. To commemorate the International Year of Millets (IYM), Zimbabwean officials, civil society organizations, and farmers were joined by visitors from Italy, the FAO, and the Secretariat of the International Treaty.

The Indian government has taken initiatives to promote IYM as it has been advancing millet creation as a component of its National Food Security Mission. The government also increased the Minimum Support Price for Millets, providing farmers with a significant price incentive. Additionally, the government has included millets in the public distribution system to ensure a steady market for the produce.

On 18th March 2023, the Prime Minister, Shri Narendra Modi inaugurated the Global Millets (Shree Anna) Conference at Subramaniam Hall, NASC Complex, IARI Campus, PUSA New Delhi. The two-day global conference had sessions on all important issues related to millets (Shree Anna). He also digitally launched a compendium of Indian Millet (Shri Anna) startups and a book of millet standards and declared the Indian Institute of Millets Research of ICAR as a 'Global Centre of Excellence'. Birsa Agricultural University (BAU) has also added 'Shri Anna to

its college canteens as per the suggestion from ICAR to utilize Shri Anna and its products in the agriculture colleges.

The Year will likewise promote the sustainable production of millets while featuring their capability to give new practical market opportunities for producers and consumers. According to FAO, the 2030 Agenda for Sustainable Development will be aided by the IYM 2023 and efforts to boost millet production. All central government ministries/ departments, in line with the Prime Minister's vision to make the celebrations of IYM 2023 a "people's movement" and position India as the "global hub for millets." A significant program in this context is the organization of the Global Millets (Shree Anna) Conference in India. The government has been frequently using the slogan "Poshak anaj hai guno ka khazana, sasta-sugam hai isse kheto mei ugana" to promote the International Year of Millet-2023.

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The Society: A Woman's Perspective

Akanksha Kumari, *8th, Semester, PJMCDT, Dumka*

I have always wanted to be someone like my mother. However, she has a totally different view on this issue.

As far as I can remember, I was twelve when for the first time, my mother thought I was mature enough for her worldly conversation. "You're a big girl now, Simi. When a daughter grows up, she becomes her mother's best friend. Always speak up against things and people that make you feel uncomfortable.", her words kind of bounced my little head. So, apparently I wasn't that mature. A year or so passed and I saw mom being uncomfortable about a lot of things. My friends were uncomfortable about a lot of stuffs too. But none of them used to voice it out.

"Avoid it, girl. They are just whistling."

"Avoid it. They are just staring."

"Avoid it. He is my husband. He can shout."

"Avoid it. It was just a touch."

I was confused. Why was everyone talking so casually about all this. How was I supposed to tell my mother that this is not what I want to do. I don't want to avoid it. I don't want to watch her getting scolded by dad because of useless stuff that doesn't matter. I don't want my friends to just sit and cry about such things.

But as I grew up and faced some or the other situations in everyday life, I realised that we weren't supposed to voice out everything. None of those lectures at school about self defence or woman empowerment mattered in real life. Because we are an educated generation which has learned the word "IGNORANCE".

"Let it be. It's her problem. What can we do?", were the words of my mother when I told her about a friend whose father wanted to get her married in 10th standard. Ridiculous. Isn't it?

As I grew up, I realised, that we as a society have learned to take things a bit too casually. An uncomfortable touch. An unwanted argument. An undeserved slap. Or anything else that becomes violence. Physical, sexual, mental or verbal.

"You girls have the benefit of reservation."

"You don't have to take the responsibility of family."

"You don't have to worry about your parents' house."

Such patriarchal phrases clogged in the highly graduated minds who are blinded by the words of their parents or their friends. But no matter wherever it comes from, it does make me question the education and qualifications of everyone around.

Traveling through different parts of the country during my graduation period has been quite a rollercoaster ride. Not physically. But mentally. Tall buildings, huge factories, branded clothes and a stomp-worthy mentality. Different regions, same stories.

I'm not a professional writer who has extremely praise worthy phrases or poetic lines to address everything I feel. And I'm afraid if I be too straightforward, I might just be called a "feminist".

I don't think I would want to voice out everything either. It's sad and it's pitiful that I might be having a much better experience than many woman across the country and the planet.

It's sad that we are told to just keep quiet most of the time. Be it when we are in physical pain during months or the mental stress of being in any kind of scary situation.

It's sad how death doesn't scare us as much as sexual harassment does.

It's sad how we say, "Don't try to act over strong, what if they come with more people next day?"

It's sad how most of the time, the phrases and harassment comes from family.

It's sad because my mother ends up saying, "it's okay. Please don't overreact."

Well, now that I look into it, I don't want to be like her, nor do I want her to drizzle in such thoughts forever.

This little article is nothing but a tiny question to every woman who has some or the other day faced issues.

It is a tiny question to everyone out there, "Is education really all we need to have the bookish explanations of woman empowerment?"

Encouraging Women of Jharkhand to Make Fish Dish

"Let's try some new fish dishes besides fish gravy."

Shambhavi Kumari Mishra, *3rd Year, CFS, Gumla*

Let's take dish made from fish to a higher level by motivating women to do more experiments on the fish dish and help fishermen, women, and local people to grow more fish to have healthy fish dishes in the state of Jharkhand. One thing that comes to mind is why encourage women? The answer is very simple, to promote gender equality, men and women both can work together and help in grow fisheries sector. Women are eligible to do both on-site and off-site work which gives them wings to fly high. They can make a variety of fish dishes and sell them. The fisherman's whole family can get involved in this sector if women are allowed to work. In Jharkhand, women can take the lead by selling fish dishes. Furthermore, many women are not permitted to work outside the home; thus, this concept will allow them to work from home and earn a living.

They will be able to do the start-up with less investment and can take help from the "Tejaswini Project", which was initiated by the government of Jharkhand to promote the socio-economic empowerment of teenage girls and young women. There will be less competition in the market, and when they do have competition, they will be able to make a brand of their own. Also, they will be motivated to grow more fish. The source of income will increase as they will directly sell the products to the consumer. A large number of people can be involved. Women who are interested in fisheries

extension can take the lead and establish the fundamental principles of fisheries extension. Also, the College of Fisheries Science in Gumla district conducts training programmes to teach how to make a variety of fish dishes; this will also help more women get an idea about how to prepare more diverse fish dishes like fish pickles, fish cutlets, fish momos, etc. Students have also been learning to prepare several of these value added fish products as part of their course curriculum.

Mr. Sushant Gaurav, District Commissioner, Gumla checking the fish pickle

Students of College of Fisheries Science, Gumla learning to prepare different value added fish products

Since March 2, 2022, the ICAR-CIFT Tribal Sub-Plan project has created means of self-employment for rural women by conducting several training programmes*

We all know the craze of fast food in the market; thus, we will be using this as our plus point. We can plan to provide healthy street foods, show the importance of fish, encourage women to make more fish dishes other than gravy items to show the variety of fish dishes, and replace chicken and eggs as the quantity used is very low and the flesh content is low compared to fish. Fish products enhance the nutrition content of junk food. We can make street food way more nutritious than before and save consumption for those who are allergic to meat. Also, we can plan to start community organisations to empower women in rural as well as urban areas.

Rohu, Catla, Mrigal, and Pangus Fish are the most commonly grown fish in Jharkhand. Rohu has the highest (18.4%) crude protein, followed by Catla (17.3%), Mrigala (17.0%), and Pangas (14.6%), which is higher than that of milk (3.5%) and eggs (13.3%).

Through this, we can encourage local people to eat more fish dishes and spread the word about the nutritional value of fish. Teenagers and older people often want to eat junk food, but it is unhealthy. Many are also health conscious, but the dishes that will be made from fish will be very healthy, containing less animal content, and this start-up will lead to success.

Also, we see women's roles in the seafood industry as laborers, supervisors, quality controllers, administrators, directors, and CEOs. Why should Jharkhand's women fall behind?

In fisheries, India has a total share of women of around 10,316,004, which is about 72%. (Source: World Bank, FAO, World Fish Center, 2010). Jharkhand fisheries cooperative societies get financial assistance for pick-up vans for the marketing of fish and fish seeds. Also, retail stalls are made available with an 80-90% subsidy to facilitate the retail marketing of fish in hygienic conditions. These projects are also very helpful to the women of Jharkhand.

Women and Food have a great bond; I being a fisheries student, just want to make this bond stronger.

Modern Technology in Agriculture

Vikash Kumar, *8th Semester, TMAC, Godda*

The agriculture sector forms only about 18 percent of India's GDP despite employing almost 65 percent of the total workforce. Despite significant improvement in food grain production, there are several challenges to tackle as the government aims to increase agricultural production as a share of GDP. Agriculture in India is largely dependent on nature, but climate and global warming issues make farming unpredictable. The need of the hour is to educate farmers in the use of modern technology and innovative approaches to increase productivity and raise profitability.

Zero tillage machine

Agricultural development practices over a period of time have been perceived to exploit natural resources faster than they could be renewed. Exponential growth in human population has resulted in demand for food and shelter, which the "natural" carrying capacity of land is under pressure to provide.

Some technological advancements that have innovated agriculture:

- **Improved productivity from mechanization of agriculture –** Manual labour and hand tools used in agriculture have limitations in terms of energy and output, especially in tropical environments. To reduce manual labour and make processes faster, combine harvesters are finding greater use. Indian farming is characterized by small landholdings, and the need is to partner with others to take advantage of modern machines.
- **Climate/ weather prediction through artificial intelligence –** A major advance in agriculture is the use of artificial intelligence (AI). Modern equipment & tools based on AI enable data gathering and assist in precision farming and informed decision-making. Drones, remote sensors, and satellites gather 24/7 data on weather patterns in and around the fields, providing farmers with information on temperature, rainfall, soil, humidity, etc.
- **Resilient crops developed via use of biotechnology –** Agriculture refers to a wide resource of methodologies that include traditional breeding methods, genetic engineering, and development of microorganisms for agriculture. Generally speaking, genetic engineering uses the understanding of DNA to identify and work with genes to increase crop resistance to pests, and this also makes improvements to livestock.
- **Agriculture Sensors –** Communications technology has evolved rapidly in India and made smart farming a possibility. Sensors are now being used in agriculture to provide data to farmers to monitor and optimize crops given the environmental conditions and challenges. These sensors are based on wireless connectivity and find application in many areas such as determining soil composition and moisture content, nutrient detection, location for precision, airflow, etc.

"Freshwater Prawn Farming in Jharkhand"

Mr. Uttam Narayan, *3rd Year, Batch 2020-24, CFS, Gumla,*

Since the inception of the new state of Jharkhand, we have never looked back into the past. Jharkhand has recently grown up 22 years old and still we have miles to go.

Freshwater Prawn which is scientifically called as Macrobrachium rosenbergii is one of the most liked delicacies in the entire globe. Regardless of all the unavailability and unavailable of resources still Jharkhand is prospering well.

The freshwater prawn is the second largest fast-growing prawn which occurs commonly almost every part of the nation. They may be cultured in both monoculture as well as poly-culture. It a compatible species for poly-culture along with Indian Major Carps which yields **400 kg** prawns and **3000 kg carps/kg/ha/yr.**

The technology of large scale seed production and grow out culture have led to increase awareness of the farmers and entrepreneurs for diversification of their culture practices.

Jharkhand being a landlocked state has focus only on the inland method of farming. Despite several constrains farmers are still a bit courageous enough to adopt this profession.

Most of the well educated and experienced farmers are able to bring out profit from their production. But this is just the tip of the ice-burg. There are still silent majority of farmers who are poor and due to lack of technical knowledge they are not able to establish the farming system.

It is very *transparent* that the **demand** of the freshwater prawn in the state of Jharkhand is very **high.** And compared to the demand the production is very low.

This is basic reason why the cost of prawns are exorbitantly high. Common men are ***not able to afford*** the prawn where as fish seems a good option for them.

This is where ***opportunity lies in the disaster.***

We need to ponder deep into the problem. What will we do about all the **researches** and **discussion** if the market is not getting the influx of the supply in proper manner. What is the us of discussion if we lag behind in the production process and rather there is debate about parameters and laws concerning to it.

The farmer needs multiple years to recover the investment and make a profit out of it.

I think, India is well blessed with talented fish farmers but their hands are tied with the chain of poverty. Unfortunately our farmers are in the poorest state among all other profession.

It very much transpires that they are not that much well educated about the government policies and fund raising to establish their venture. They cannot afford to invest 8,50,000 in making one hatchery to begin the journey.

Well, this was all the problem part of the talk. Let me propose some solutions for this issue which I think may solve the problem.

It is very clear that Freshwater Prawn culture in Jharkhand has not yet been monopolized by any enterprise.

We need to bring forward some easy financing agency which shall be run by the government or any institutions like ours who will have expertise in one sector only. I mean to say that if we are focusing on the production of Freshwater prawn culture in Jharkhand then that particular agency must be excellent in its culture techniques.

Now this agency shall have obligation to educate the farmers and motivate them to adopt the farming of freshwater prawn.

The agency will fully support the farmers in getting them well supplied with all the basic requirements and necessities for bridging the gap between supply and demand. Which will ultimately lead to being down the cost of of production making it affordable to the common people.

This was one of the problem and a small solution which I have proposed form my side. *I think it shall be one, that must be focus well because other parameters only comes forward when the farmer is willing to do the farming.*

Wholesomeness of Entomophagy

Shubham Kumar Mishra & Kaushik Kumar, *8th Semester, TMAC, Godda*

The practice of eating insects as diet is known as entomophagy. And its not some bizarre food habit, some two billion people around the world already add insects to their daily diet. Consuming the right kind of insects not only provide nutrition, with high protein, fat and mineral content but also address the issue of food scarcity especially in the developing world, where they are also the staple in the diet.

Mopane caterpillars for ex are delicacy in south Africa or red ant larvae consumed in assam during Bohag Bihu festival. Other commonly eaten insects include crickets, beetles, bees, wasps, grasshoppers etc. Silkworms are also very popular in the north east of India as snacks and supplements to the diet. Globally more than 1900 hundred insects species are considered edible with beetles being the most common. In India almost 255 insects species are used as food with coleopteran insects being highest at 34% followed by orthoptera at 24%.

Why entomophagy?

1) **Health:** Edible insects are not just healthy and nutritious with very high protein, vitamin contents but are also therapeutic in nature.
2) **Environmental:** Insects have high growth feed conversion rates and allow environmental footprint over the life cycle.
3) **Economic and social factors:** Insects are literally everywhere, their harvesting/ rearing is a low-tech, low-capital investment. They are also culturally and socially important to the indigenous tribes of the world.

Dried and processed products:

Dried insects are more popular due to their easy handling and high shelf life. Dried insects are also tastier with less pungency. Some of the processed insects products are :-

- Insects flour and protein powders
- Insect oil extraction
- Insect burger/ snacks
- Insects bread
- Insects fitness bars

Insects thus should not just be evils as we imagine but can also play a fun and nutritious role and be a delectable part of our pantries and plates.

The Enriching Journey of an Agriculture Student

"Nurturing the Earth, Knowledge, and Future"

Khushboo Kumari, *Batch - 2019-20, RAC, Ranchi*

Agriculture, the backbone of civilization, has played an indispensable role in sustaining human life for centuries. As the world faces complex environmental challenges, the role of agriculture has become more crucial than ever. Within this realm, the life of an agriculture student is a unique and enriching experience. This article delves into the captivating journey of an agriculture student, exploring their education, practical experiences, and the invaluable contributions they make to society.

The life of an agriculture student revolves around a comprehensive and interdisciplinary curriculum. From day one, students dive into the world of plant sciences, soil management, crop production, agricultural economics, and animal husbandry. They learn about the intricate relationships between crops, climate, pests, diseases, and sustainable farming practices. These aspiring agriculturists gain theoretical knowledge through classroom lectures, laboratory experiments, and research projects. They develop a deep understanding of agricultural principles and learn to analyse and solve complex problems faced by the farming community.

Beyond the confines of lecture halls, agriculture students eagerly embrace hands-on experience in the field. They engage in practical sessions where they learn to sow seeds, nurture crops, and harvest agricultural produce. This exposure allows them to understand the challenges faced by farmers first hand and develop an empathetic perspective. Agriculture students also engage in field visits to agricultural research canters, farms, and rural communities, gaining insights into diverse farming practices and the socio-economic realities of rural life. These experiences foster a holistic understanding of agriculture and in still a sense of responsibility towards sustainable and inclusive farming practices.

An agriculture student's life is deeply intertwined with nature and the environment. They learn to appreciate the delicate balance between human activities and ecological systems. These students spend significant time outdoors, observing the ever-changing seasons, studying soil composition, and analysing weather patterns. They learn to conserve natural resources, promote biodiversity, and mitigate the impacts of climate change on agricultural production. Through their education, agriculture students become stewards of the environment, applying their knowledge to ensure the long-term sustainability of agricultural practices.

Agriculture students understand the importance of collaboration and community engagement. They actively participate in agricultural extension programs, working closely with farmers, cooperatives, and rural communities. By sharing their knowledge and technical expertise, they help improve farming methods, introduce innovative techniques, and promote sustainable practices. These students empower farmers by disseminating information on modern technologies, crop diversification, and market opportunities. Through their efforts, agriculture students contribute to the socio-economic development of rural areas, enhance food security, and uplift the livelihoods of farming communities.

Agriculture students also delve into research and innovation to address the evolving challenges faced by the agricultural sector. They conduct experiments, collect data, and analyse findings to develop cutting-edge solutions. These research endeavours aim to improve crop yields, enhance disease and pest management, optimize water usage, and reduce environmental impacts. Agriculture students embrace technology and innovation, exploring avenues such as precision agriculture, genetic modification, and sustainable farming systems. Their efforts contribute to the advancement of agricultural science and hold the potential to shape the future of food production.

Last but not the least the life of an agriculture student is a remarkable journey that combines theoretical knowledge with practical experiences, nurturing a deep connection with nature and a passion for sustainable farming. As they acquire skills, engage with communities, and delve into research, these students become catalysts of change, driving innovation, and contributing to the betterment of the agricultural sector.

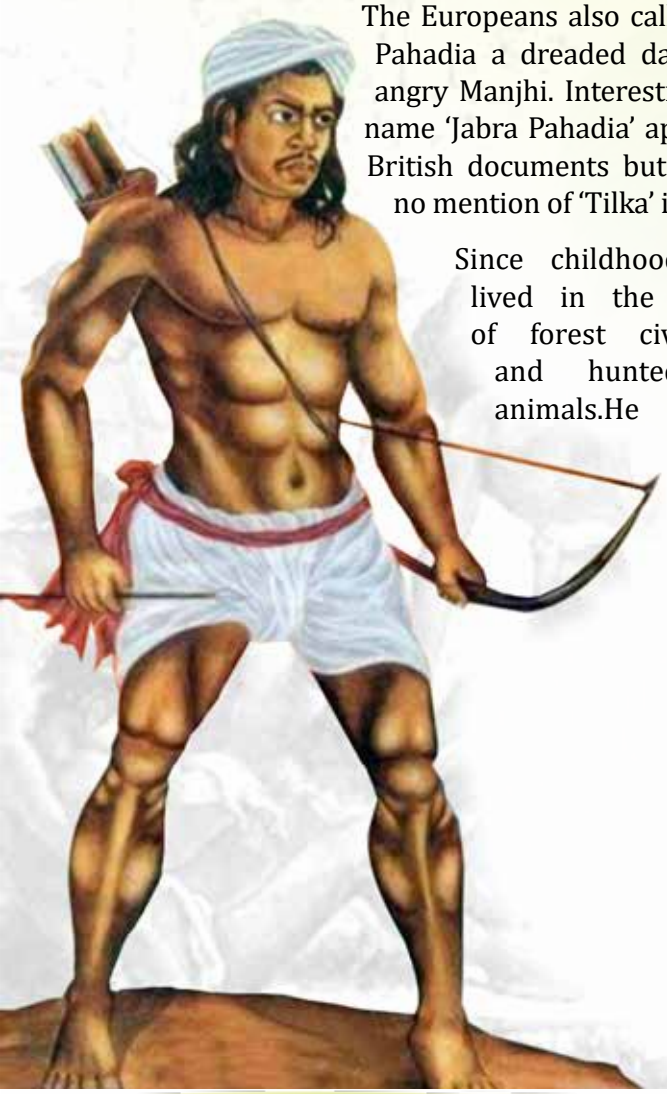


Baba Tilka Manjhi, A Glimpse

Tanushree, *3rd Semester, TMAC, Godda*

Baba Tilka Manjhi aka Jabra Paharia was the first Indian adiwasi leader to lead a people's revolt against the British.He was a fearless warrior who led a gallant rebellion against the East India Company's entry into the Santhal region.Tilka Manjhi was born on 11th February 1750 in a village called Tilkapur in Sultanganj,in today's Bihar.His father's name was Sundara Murmu.

The Company gave him the name Tilka Manjhi-in Pahadia language, "Tilka" means a person with angry red eyes.Jabra went on to become the village head and in his community,it was customary to address the village head as "Manjhi". That is how he got the name " Tilka Manjhi". The Europeans also called Jabra Pahadia a dreaded dacoit and angry Manjhi. Interestingly, the name 'Jabra Pahadia' appears in British documents but there is no mention of 'Tilka' in it.



Since childhood, Jabra lived in the shadow of forest civilization and hunted wild animals.He worked out,wrestled,climbed tall trees,walked the valleys and would trek hills.Wildlife made him fearless and brave. From an early age, Tilka witnessed the plunder of forests and his people being put through severe torture by the zamindars. Slowly, Tilka started to oppose these oppressive forces. He raised his voice against them. Tilka Manjhi used to address local people in meetings in Bhagalpur to inculcate national spirit. He used to inspire people to unite by raising above caste, community and religion. Thus began his war against injustice and slavery.

Tilka launched an open rebellion against the British. Determined to defend his people and land, Tilka organized the Adivasis into an army trained in the use of bows and arrows. For years, they would be at war with the Europeans and their army.

After many hideouts, escape and bloodshed, once when Tilka Manjhi took the British forces head on, he was unfortunately captured by the East India Company during the battle. It is said that they tied him to four horses and had him dragged all the way to Bhagalpur. Despite being dragged for miles,Tilka Manjhi was alive. Even today Santhals talk about his body being soaked in blood and his blood-red eyes could still instill fear in the hearts of the British. Around mid-January 1785,in Bhagalpur, as thousands watched, Jabra Pahadia, alias Tilka Manjhi, kissed the noose and was hanged from a huge banyan tree. He was just 35 at that time.

To honour his memory, a statue of him was erected at the Bhagalpur court, the very spot where he was hanged. What Baba Tilka Manjhi did was the start of a big revolution in INDIA because he had sown the seeds of freedom struggle and inspired many others with his courage, bravery and free spirited attitude for which we will always be grateful to him and I salute him for his fearlessness and valour.

NSS : Incorporating Social Services into Education for a Better Tomorrow

Debashish Paul & Shambhavi Kumari Mishra, *3rd Year, College of Fisheries Science, Gumla*

The National Service Scheme (NSS) was formally launched on 24th September 1969. The Programme was started during the birth centenary year of Mahatma Gandhi, the father of the Nation, who inspired the Indian youth to participate in the movement for Indian Independence and the social upliftment of the downtrodden masses. Every year 24th of September is celebrated as NSS Day with appropriate programs and activities.

Initially, the NSS was introduced in 37 universities with 40,000 volunteers. Currently 36.5 lakhs volunteers are participating in 39,695 NSS units spreaded across 391 universities, 16278 colleges, and 12483 senior secondary schools. The motto of NSS is "NOT ME, BUT YOU". An NSS volunteer places the 'Community' before 'Self'.

Our college, the College of Fisheries Science, Gumla, also takes part in various activities of NSS. It has a total of seven department in which various subjects are taught by the knowledgeable and experienced professors of their respective fields. Not only quality education, but our college also conducts various training programs through which farmers are trained and educated with different aspects and scopes of the sector, and this leads to the upliftment of the society.

The CoFS, Gumla has produced gems who have always raised the head of the college and university in the field of studies and other activities. According to me "Knowledge is the key to success, but social work is the peace of our own selves." Thus, our college focuses on both educational and social services through various events that are conducted throughout the year.

Social works help students to cope with stress and mental health issues, assessing students' emotional and psychosocial issues, help them participate and communicate with each other and this factor enhances the soft skill of students.

Our college organizes series of events aimed at raising awareness and cultivating a sense of compassion among individuals regarding their social responsibilities. Some of the conducted events are given below-

Cleanliness programmes

Through the cleanliness program, we played a vital role in social work as it helped both individuals and communities to promote health and creates a positive environment that fosters a sense of pride and responsibility.

Cultural events

The cultural event is the favourite of all students at my college as it enhances the hidden talent of many students. These events promote cultural diversity and understanding and provide a platform for individuals from different backgrounds to come together, breaking down barriers, and preserving traditions, customs and heritage, which are essential for maintaining cultural identities.

Yoga and mindfulness meditation

International yoga day is always celebrated in our college even during the lockdown periods. Yoga is practiced by every student, it serves as a powerful form of social work by promoting physical, mental, and emotional well-being. Through yoga practices, such as asanas (postures), pranayama (breathing techniques) and meditation, we students improve our overall health and manage stress effectively. By incorporating yoga into social work initiatives, students can develop mindfulness, self-awareness, and empathy, which are essential for building strong and compassionate communities. It is also used as a therapeutic tool to address specific social issues like trauma, addiction and mental health, empowering individuals to overcome challenges and lead healthier, more fulfilling lives.

Blood Donation Camp

Blood donation is a crucial form of social work that saves lives and improves the health of individuals in need. It is a selfless act that demonstrates compassion and solidarity, as it helps those who are undergoing surgeries, recovering from accidents or dealing with chronic illnesses. Through blood donation, students actively engage in a humanitarian effort, making a tangible and immediate impact on the lives of others and fostering a sense of unity and care within society. Our college has also done a blood donation campaign in which 40 units of blood were donated by students and professors and other college staffs.

Rural Visits

As part of our college's initiatives, visits to villages were arranged where students actively engaged with farmers, created awareness about various fishing practices and techniques and collected essential records for their benefit. This involvement helped to bridge the gap between students and society, creating a sense of responsibility and empathy.

Other activities

Many other activities are performed under the National Service Scheme (NSS) which plays a significant role in social work by fostering volunteerism and engaging students in various community service activities. The skills students acquire help them enhance their personal growth and prepare them for responsible citizenship and play a vital role in nurturing socially conscious individuals.

To conclude, I would like to say, "Don't wait for good things to happen to us, don't let your hopeless feelings keep you from getting up and doing something." NSS offers students a priceless opportunity to engage in social work, gain practical experience, acquire crucial skills, and cultivate civic responsibility. By actively participating in NSS, students can make a significant difference while benefiting personally and professionally.

Millets: A Miracle Crop for Human Health

Peeyush Kumar Jaysawal, *Ph.D. Scholar*, **S. Karmakar and C.S. Singh,** *Deptt. of Agronomy, BAU, Ranchi*

Historical part

Millets are a group of highly variable small-seeded grasses, widely grown around the world as cereal crops or grains for human food and as fodder. There is evidence of the cultivation of millet in the Korean Peninsula dating to the Middle Jeulmun Pottery Period (around 3,500–2,000BC). In India, millets have been mentioned in some of the oldest Yajurveda texts, identifying foxtail millet (priyangava), Barnyard millet (aanava) and black finger millet (shyaamaka), thus indicating that millet consumption was very common, pre-dating to the Indian Bronze Age (4,500BC),

During 1900-2000, these crops were replaced by high yielding rice, wheat, pulses etc. but now they are no more orphan crops because of health consideration.

Introduction

Millets are small seeded crops from grass family that are hardy and grow well in arid and semi-arid ecosystem mostly as rainfed crops under low soil fertility and moisture condition on marginal lands. These are resilient to high temperatures and drought prone environments; require only 350 mm water as compared to 1200 mm for rice. Millets being highly adaptable to different ecological conditions are ideal crops for climate change and contingency planting.

- **Important millet crops grown in India are**
  1. **Major millets**
     - i. Sorghum (great millet)
     - ii. Bajra (pearl millet)
     - iii. Ragi or mandua (finger millet)
  2. **Small millets such as**
     - i. Kutki or same (little millet),
     - ii. Sanwa or jhangon (barnyard millet)
     - iii. Kangni or kakun (foxtail millet)
     - iv. Cheena (proso millet)
     - v. Kodo (kodo millet)
     - vi. Korale (brown top millet)
- According to FAO, the world's production of millets is 89.17 million tonnes from an area of 74 million hectare (2019–20).

Table 1. World area, production and yield of millet crops (mean of 2015–19)

Millets	Area (million ha)	Production (million tonnes	Yield (kg/ha)
Sorghum	41.91	61.18	1460
Pearl millet	28.38	23.68	834
Proso millet	0.77	1.19	1535
Finger millet	2.31	3.33	1442
Foxtail millet	0.79	2.11	2688
Teff	3.35	5.56	1660
Fonio	0.92	0.70	790
Total	**78.43**	**97.75**	**1247**

(Bhat et al., 2023)

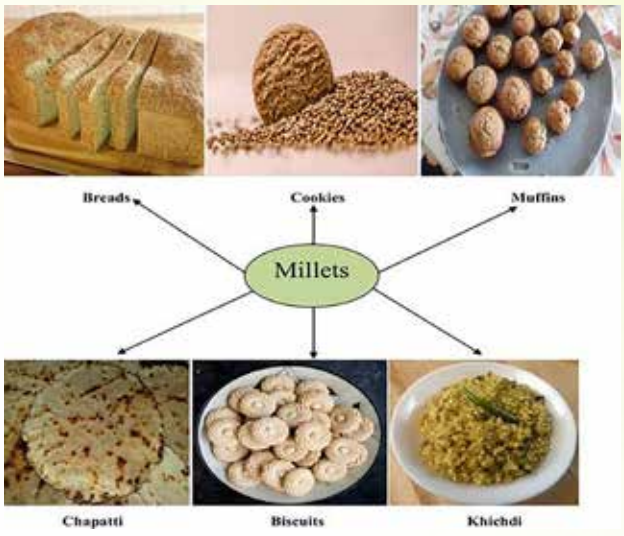
- India is a global leader in production of millets (17.9 million tonnes, 2020–21) that are cultivated in 21 states in an area of about 12.5 million hectares with a share of more than 15% of the world's total production.

Table 2. Millet crops area, production and yield in India during (2009–22)

Millet	Area ('000 ha)			Production ('000 tonne)			Yield (kg/ha)		
	2009–13	2014–18	2019–22	2009–13	2014–18	2019–22	2009–13	2014–18	2019–22
Sorghum	6684	4910	4355	4290	4404	4632	913	897	1064
Bajra	8480	7142	7415	7030	8738	10149	1065	1223	1369
Ragi	1211	1104	1097	985	1710	1807	1580	1549	1647
Small millets	773	570	436	435	403	349	554	707	800
Total millets	**17149**	**13726**	**12680**	**12740**	**15255**	**16937**	**1019**	**1111**	**1273**

(Bhat et al., 2023)

Application of Millets in Food Industry



(Kaur et al., 2019)

Major Health Benefits

- The consumption of millet and millets-based value-added products have health promoting effects such as anticancer, anti-viral, anti-inflammatory, anti-diabetic, improving respiratory problems, improving digestive system, protect from metabolic syndrome due to presence of nutrient and anti-nutrients components such as tannins, phenolic compounds, flavonoids, phytosterols and others.
- C: F (Carbohydrate: Fiber) ratio for Wheat (63.5), Paddy Rice (395.5) but for millets (6.72)
- Low GI (Glycaemic Index)-good for avoiding and managing diabetes
- On processing aspects of the value-added products, different types of processing technologies such as extrusion cooking, irradiation, and high temperature short time etc. are beneficial to increase the bioavailability of micronutrient contents in the foods.

Benefits of Millets

(Kaur et al., 2019)

Higher Consumer Awareness Essential

GOI has taken several steps for promotion of Millets. To create domestic and global demand and to provide nutritional food to the people, The National Year of Millets was celebrated in 2018. In view of the nutritional value of the millets, the Government also notified Millets as nutri-cereals in April, 2018 and Millets were included under the POSHAN Mission Abhiyan. Over 500 startups are working in Millet value chain. Indian Institute on Millet Research has incubated 250 Startups under RKVY-RAFTAAR (Vasudevappa, 2023)

- Problems related to millets production
- Cultivation with low productivity
- Lack of good quality seeds
- Lesser shelf-life
- Lack of machineries for processing

- Absence of market linkages
- Lack of uniformity, standard and grades are the major problems related to millets

Indian Council of Agricultural Research (ICAR) through Indian Institute of Millets Research (IIMR) and AICRP Project on Millets has succeeded in development of more than 90 varieties for different agro-climatic regions

- Recently Prime Minister of India dedicated to the nation ICAR developed 3 bio-fortified varieties of millets **(Finger millets, CFMN-1,2, Small millet CCLMN)** with high iron and zinc contents on the occasion of 75th Anniversary of UN FAO.
- To promote millet production, Agriculture Commissioner GOI developed and implemented new Sub-Mission on Nutri-cereals (Millets) under National Food Security Mission Programme in the year 2018 to increase area, production and productivity of millets in 212 districts of 14 states. Consequently, the production of millets has increased from 13.7 million (2018–19) to 17.9 million tonnes (2020–21).

Why International Year of Millets? (Malhotra, 2023)

1. Millets are highly climate resilient crop

- Climate change is affecting the crop yield and quality of many crops but millets possess several morpho, physiological & biological characters- thus are adaptable to dry regions.
- Early maturity (65-85 days); high drought (150-500 mm rainfall) and salinity tolerance; high heat tolerance (>42° C of air temperature)
- Adapted to adverse, marginal & changing environments supports increased resilience to climate change

2. Millets have high nutritional value

Targeting some of the biggest nutrition and health needs globally.

- High in Iron, Zinc, Folate
- High in calcium
- Low GI (good for avoiding and managing diabetes)
- High in protein, dietary fiber, antioxidants.
- Gluten free

3. Millets are: Good for the planet (Take less to give more) Millets provide a viable option for the marginal farmers & Sustainable production system

- Grows with minimal fertilizer and pesticides
- Survive with less water
- Grows faster putting less stress on the environment.
- Multiple uses as food, feed/ fodder, biofuels, brewing
- Eaten in many forms

4. Attention is needed that millets is a global priority for achieving food and nutrition security, particularly in

- Contributing to Sustainable Development Goals (SDGs) 2,3,12,13
  - i. SDG 2 End hunger, achieve food security and improved nutrition and promote sustainable agriculture
  - ii. SDG 3 Ensure healthy lives and promote well-being for all at all ages
  - iii. SDG 12 Ensuring sustainable consumption and production patterns
  - iv. SDG 13 "Take urgent action to combat climate change and its impact

Millets crop as a source of fodder

The farm communities in the semi-arid and arid regions of the country are dependent on crop residues as a major form of roughages for cattle since they neither have the luxuries of green fodder from irrigated forage crop nor can afford to sacrifice the farm area for dedicated one-time green forage. Annually, millets account for 11% of the 30 million tonnes crop residues produced in India. Improved varieties and hybrids of the millets yield higher, both grain and stover.

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Algal World and Our Shared Future

Kaushik Kumar & Shubham Kumar Mishra, *8th Semester, TMAC, Godda*

Microalgae are tiny autotrophs which convert sun's energy into the biochemical form. With Phytoplanktons creating 50% of the world's O2. Algae being the primitive photosynthetic organisms, with millions of years of evolution, are able to exploit diverse environments, like extreme temperatures, UV, salinity, or low nutrient levels. Beside this they are 20 times more productive than conventional crops, and require very little to keep them alive. And project no competition to agriculture as there's no need for fertile land (can be grown even in deserts).

Spirulina (a type of algae), has gained traction as a popular health food supplement & repeatedly been termed as the superfood of future by the scientists. Superfood are food of the future as they need very less resources for growing on large scale. Every bite of Spirulina contains more protein and more iron than any form of meat. Algal protein also contain DHA which is present in breast milk but absent in cattle alternatives and can be infused in baby food formulations. Algalin, a wonder product from algae, is a conjugate of algal butter & algal protein, may substitute vegan butters in the market given its additional protein content & rich in omega 3 fatty acids.

ALGAL WONDERS:-

- **Algae as superfood:-** Algae are easy to grow, cheap, and abundant. Secondly it being the very high source of protein can fulfil the amino acid needs of all, even vegans included.
- **Algae as plastics:-** Plastic substitution through algae culture as biodegradable polymers in the place of plastic is recently catching up talks in many eco-startups.
- **Algae to combat pollution:-** Algae can indicate & remove pollutants like CO_2, SO_2, NO_2, particulate matter from air also heavy metals, organic pollutants, petroleum contaminants, pesticides, polycyclic hydrocarbons (PAHs), & plastics from water sources. Seaweed can be grown in heavy fertilizer wash areas to prevent algal blooms.
- **Algal biofuels:-** 3rd GEN biofuels, to fill the energy needs of the energy hungry world.
- **Algae to space :-** Spirulina has also been flown to space for long term research on growing it in microgravity for its future scopes in space farming. Cyanobacteria can be the pioneer for terra farming mars by utilising the Martian regolith, CO_2 to produce O_2 & dietary protein to sustain the life and in a sense to begin life on mars.

Algae in past have been the pioneer for life on earth and now lurk in our shared future for being the same pioneer in this world and beyond.

Selecting Crops Aligned with Land and Soil Capacities

Shreya Singh, *Batch : 2019-20, RAC, Ranchi*

Soil, as the uppermost layer of the Earth's crust, plays a crucial role in supporting plant life. It is influenced by various factors such as climate, organisms, parent material, and relief, which shape its characteristics over time.

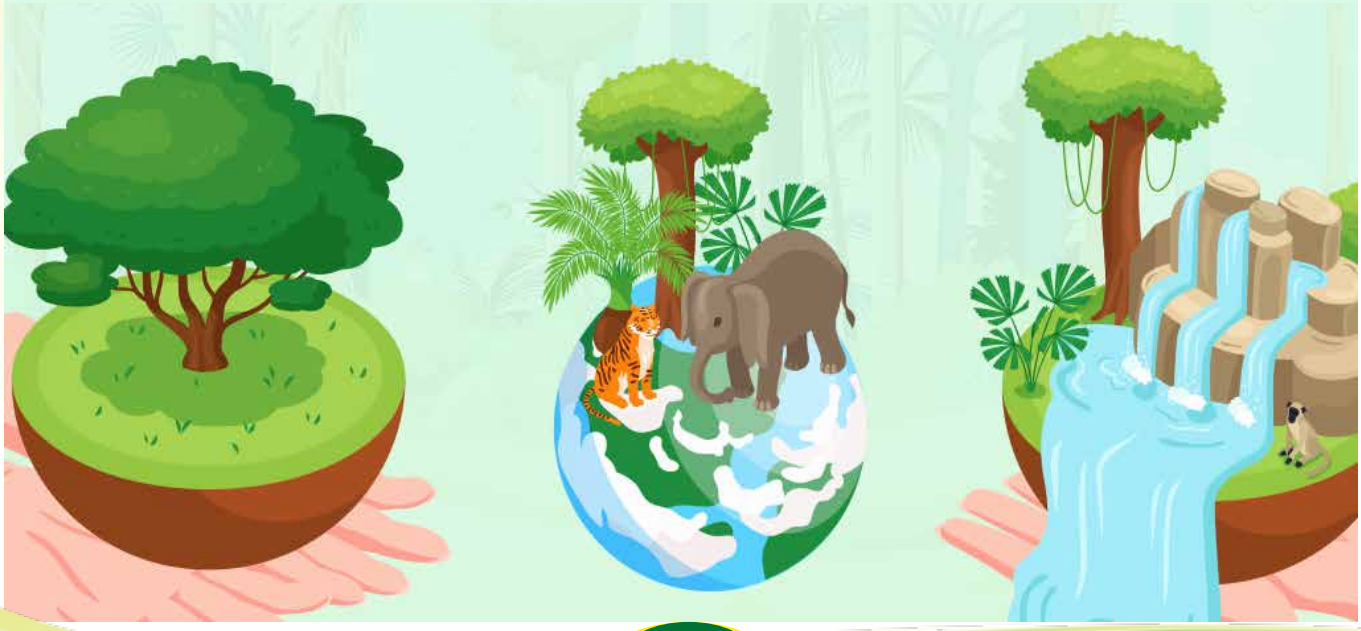
When it comes to growing crops, it is essential to consider the land and soil capability to ensure successful cultivation. Not all soils are suitable for all types of crops, so crop selection should be based on the soil texture. For example, arable crops like potatoes, maize, millet, arhar, and vegetables thrive in loamy sand and sandy loam soils. These soil types are highly permeable but low in soil nutrients and water-holding capacity.

Medium-textured soils, ranging from loam to silt loam, are typically found in areas with moderate upland physiography. They offer favourable conditions for growing crops such as wheat, paddy, pulses, and various other crops. These soils have a moderate fertility status, providing adequate support for crop growth.

On the other hand, heavy-textured soils like clay loam and clay have lower permeability due to their clay content exceeding 35%. However, these soils are fertile, and paddy cultivation tends to yield higher output. Clay minerals play a vital role in crop production, and in the region of Jharkhand, three types of clay minerals are commonly found: kaolinite, elite, and montmorillonite. Red and yellow soils predominantly contain kaolinite clay minerals, which have a lower capacity to retain water and nutrients. To enhance their water and nutrient absorption capacity, the addition of compost and other organic manures is necessary. In lowland areas dominated by clay soils, montmorillonite clay minerals prevail, offering greater capacity for water and nutrient retention.

Jharkhand's hilly regions are primarily characterized by acidic soils with a pH below 6.5 to 5.0. Lime application is required to raise the soil pH and improve the calcium status. Fortunately, salinity and alkalinity issues are not prevalent in any region of Jharkhand.

In summary, understanding the soil texture and characteristics is crucial for selecting appropriate crops for cultivation. Soil permeability, nutrient content, water-holding capacity, and pH levels are all vital factors to consider when planning crop cultivation in Jharkhand. Proper management practices, such as the addition of organic manures and lime application, can further enhance soil fertility and improve crop yields in different regions of the state.



Freedom Starts within Yourself

Shaanya Lal, *5th Semester, RAC, Ranchi*

Hello and welcome guys my name is Aranya Shrivastava. Come sit with me on my backyard porch. That little guy playing there is my 6 year old son, Alex and he is the apple of my eyes. When I look back to my past, I never would've thought that one day all my dreams will be achieved. I have a well paid government job as a lecturer for plant pathology, a beautiful house with my dream library and backyard with pool where I live with my mother and a 6 year old son who will soon start classes for 1st grade.

In our country there are certain ways women are portrayed and certain norms they say to be followed by us. And I, myself defy several of these norms. Women are said to be sweet, soft spoken, should be married by the age of maximum 26, wear covering clothes, should not stay outside late at night, and always be careful of men, should take care of the household, cook and bend to every demand of their family. Should anyone defy these norms, people start talking or making their lives considerably harder.

I very well am aware that as a single mother of a 6 year old, working as a professor where most of my colleagues are people well above the age of 50s. They talk a lot behind my back, how I should find a good man and marry, how at such a young age I am a mother, that too a single mother. How things like these are frowned upon and how I should not have this job. Why I shouldn't wear jeans and tops when I am not at work, or why I should not have tattoos or why I shouldn't keep my hair short like a girl. Seriously guys, please focus on your family and life and please leave mine alone for me to handle and decide.

But my way of thinking is that why should I bend to the demands of society? This is my own life and whatever I do with it is none of their business. When I saw a 1 year old baby abandoned in the heavy rain near the trash bin, I couldn't on my conscience leave him alone. I took him home and cared for him. When my mother saw that I got attached to the base, she suggested me to adopt him. So here I am at the age of 26, single mother of a son named Alex.

Growing up, there were many expectations on my shoulders. I was taught to speak English at a very young age and to behave in certain area of rules. Going outside these boundaries meant getting a beating from my father. I was a poster child for them, top grades, good English speaking, perfect manners. I am certain I resembled Draco Malfoy from Harry Potter and my dad was Lucius Malfoy from the book. While I know that he used to love me, I still think that his love was toxic for our family.

Both my parents were working, so most of the time I didn't have anyone to take care of me. I was used to relying on myself. Getting ready for school, eating breakfast, recognizing the van I am supposed to go on and staying at home alone at a very young age. The locality also didn't have a lot of children there so most of the time I was lonely. In hindsight, I don't think I would've been allowed to go outside to play anyways. I was used to sit at home all day, and had mainly three functions: eat, sleep, study.

At first I didn't understand that when my father shouted, beat or argued with my mother or at me, it was wrong. As I grew up, I started to realize that many parents showed their children affections, even though they didn't couldn't provide them all the special facilities. As a child, I was enrolled for 3 different drawing classes, piano lesson, taekwando and swimming. For a lot of people these are very good facilities. But for me it was the pressure to get excellent marks in the exams, and out of all of these the only thing I really liked was swimming. When I was in 10th class, my friends used to say that I was ungrateful, and how they wished they had a father like mine. What they didn't understand, was the fact that even though I had all these

facilities, I would've exchanged all of it in favor of a loving family.

My mother is a person I admire a lot. When the society didn't support women like they make an afford to do now-a-days, she studied while supporting her brothers and sisters. She didn't give up and soon was the first female in my grandparents family to get a job as a government officer. Her only misfortune was that she accepted her parents decisions and married my father. Her whole 11 years of marriage she stayed like a doormat for the guy, worked, and took care of all of us. I didn't used to understand that how a woman of her level and education standard bowed to the demand of my father and why.

Later when I was in 9th or 10th class, I once asked her. She said that her she didn't care for her welfare, her only priority was my welfare and to see me settled. She said that her only wish was to see me settled and when she retired to go to an old age home to spend the rest of her life away from father. I still remember how we used to joke how my father should visit a psychologist or should be locked in the mental ward. I also promised rest keep her with me and I would never let her stay at an old age home, when she gave all up all her life and happiness for me.

When I was in 8th class my mother was transferred to another place and rather than going with her, I went to a boarding school. These few last school years where I understood how wrong the behavior my father showed was. It was the first taste of freedom, away form my father where I was allowed to do whatever I want, even with all the rules of the school. It was also the place where I met my best friends Allen and Aarvi.

It was in 10th class, when things we awry for my not so happy family. While there were times when I loved my father and times when he was my most hated person on planet earth. Loved to write storied, and read about plant diseases. My dream was to further study plant pathology. One day he found out about it, and it all started. The shouting, the degradation, the use of physical force. We had a huge row, because he wanted for me to go to medical school and be his perfect little daughter. The last straw for me was when he said, that all I had to was follow him now and later follow a husband of his choice. That is all I had to do.

Of course I refused, and in retaliation other than the bare minimum he cut off my finances. Every talk from then on we had was rows with each other. I think that was the first time I had the courage to talk back to him on a topic, otherwise I followed him like a lamb. Even then I wasn't discouraged. I took 3 part time jobs as a florist, waitress and a tutor. I stopped going home during holidays, rather rented a small room with the money I earned.

I used to talk to my mother and asked her why she couldn't divorce the man, why did she suffer the man. Her response used to be that her life is almost over why bother with divorce. She used to say that divorce is frowned upon by the society and that people will talk. During the first few months after our row, I started becoming depressed and stopped talking to my friends. My best friends used to cheer me up and got me back on my fighting spirit. To cope up with depression I took up reading fictions where the woman was powerful and didn't let anyone run over her. I also too up calligraphy where I used to find quotes about powerful women or books and draw them and put them up in my room.

In India people talk about women empowerment and how women should empower themselves. But in my opinion it is more of a talk than proper arrangements. Even when a woman takes matter in her own hand and gets a divorce, people start talking about her behind her back,. Same goes for single mothers. If a woman is not married and focuses on her career they give her a stink eye. People teach women how not to go out at night, or how to know self defense and keep things like pepper spray with them. Rather than teaching their sons how to treat women properly they teach women to take precautions and not to wear exposing clothes. Women

empowerment comes only when something like rape or molestation happens, with people doing candle march and soon it is a thing of past.

My father's family knew the nature of his son, his friends, neighbours, everyone knew. Some of the neighbours have seen my father beat me and shame me in front of them but ignored it. People think it is fair for them to use physical for on children to correct their behavior. Even once my mom went to the police, and the policeman told her to come next day with my father to talk. Come on man! How is the poor scared woman tell her husband that she went to the police for help! And so the matter was again forgotten.

After many talks with my mother, about how their opinions shouldn't matter and how she was capable of raising me alone and the fact that she is more educated and earns more than my father. I made her realise how the man controlled what she wore, where she went, who she talked to and how everything something didn't went according to him he used physical force and emotional abuse on her. The last straw for her came when I was in 11th class and my father arranged a marriage for when I was 18. My mother filed for a divorce and took me to live with her where she stayed.

While I and to leave my friends and go to a new school, I was so happy that I got to be myself without thinking of the repercussions from my father. I completed my school and went on to complete my dreams of becoming a plant pathologist. I also saw the growth in my mother and how she was happier without her husband holding her back.

It has been Tomorrow is her retirement from her school. She has been as a principal for 10 years now. Her students and I have planned a surprise farewell for her. She has been an inspiration for many and has financed many students for their studies. We have invited her 1st few batches of students, to speak on her farewell.

Once someone told me, "Freedom is being you without anyone's permission. You're allowed to cry, you're allowed to scream, but never give up. There will be a day when you will be FREE." I agree with them and Amy advise to you is to keep preserving there will be a day when you will find your own happiness. My mother and I preserved and look where I am. With my dream life fulfilled.

Oh look at the time! It is time for her to return home! Oh goodness, I left the geyser on for Alex's bath after his playtime. So it is farewell for us now. Come on you naughty little gremlin! Time for a bath and then for studying. I pick Alex up and move back towards the house while tickling him and thinking of happy and grateful I am to God for letting me gain my freedom.

"Space Farming : Cultivation of Plants in Space"

Ritesh Raj, *5th Semester, TMAC, Godda*

Introduction

Space farming refers to the cultivation of crops for food and other materials in space or on off-Earth celestial objects – equivalent to agriculture on Earth. sometimes called space gardens.

Astrobotany is one of the most interesting topics in space work. Astronauts goes to space in search of life on other planets or for doing different research work.

Though many researchers are trying to grow plants in space or on other celestial bodies like Moon. It is very difficult to carry live plants to the space as during take off a lot pressure is faced by astronauts and the space craft. So seeds are carried to space for performing research on "growth of plants in space". Many such experiments failed earlier but on currently some of the experiments are working fine in ISS according to NASA.

For example:-

1. Sunflower seedling movements were recorded while in orbit. They observed that

the seedlings still experienced rotational growth and circumnutation despite lack of gravity, showing these behaviours are instinctual. (1983)

2. Recently NASA astronomers have successfully grown two new plants in space. (2021)

· Literature Review :-

1. In the late 20th and early 21st century, plants were often taken into space in low Earth orbit to be grown in a weightless but pressurized controlled environment.
2. In 2012, a sunflower bloomed aboard the ISS under the care of NASA astronaut Donald Pettit.
3. Aug 2015, the Veggie system has succeeded in growing edible plants on the ISS. In Jan 2016, US astronauts announced that a zinnia had blossomed aboard the ISS.
4. NASA has announced plans to launch a more advanced plant growth system named Advanced Plant Habitat in 2017

Objective :-

1. Growing plants in space may provide a psychological benefit to human spaceflight crews.
2. It will help to maintain oxygen level at space craft.
3. Plants can metabolize carbon dioxide in the air to produce valuable oxygen, and can help control cabin humidity.
4. Astronauts takes energy pills and small amount of food or sometimes potato (in extreme critical situation) to survive in space.
5. Growing plants in outer space may help to grow plant in other planet like mars.

Methodology :-

1. Study of biotechnology of plants will help a lot for space farming.
2. Veggie-The Vegetable Production System, known as Veggie, is a space garden residing on the space station. Veggie's purpose is to help NASA study plant growth in microgravity, while adding fresh food to the astronauts' diet & to enhance the well-being on the orbiting laboratory.
3. The Biological Research in Canisters (BRIC) is a facility used to study the effects of space on organisms small enough to grow in petri dishes, such as yeast and microbes. BRIC-LED is the latest version, which added light emitting diodes (LEDs) to support biology such as plants, mosses, algae and cyanobacteria that need light to make their food.
4. By making equipment to maintain gravity in space craft will also help a lot for root development in plants.

Understanding FMCG/Food Tech Industry

Prasanjeet Karmakar, *8th Semester, TMAC, Godda*

In India, food sector has emerged as a high growth and high profit sector due to its immense potential particularly within the food technology industry. Rapid digitization and a consistently growing consumption multiplied the reach of food tech aggregation between 2017-2019 by six times, according to a report by google and BCG. Food lovers are ready to pay for food tech innovation for the convenience it offers without compromising on quality.

Fast moving consumer goods are the largest segment of the consumer goods. It is India's fourth largest sector with household and personal care accounting for 50 percent of FMCG sales in India. Growing awareness, easier access and changing lifestyle have been the key growth driver for the sector. FMCSs fall into the non-durable category, as they are consumed immediately and have a short shelf life (examples- milk and milk products, vegetables, fruits, gums, and all ready to eat stuffs). In India food technology industry is gaining momentum as the consumer food industry, which includes pasta, breads, cakes, pastries,

corn-flakes, ready to eat and ready to cook products, cocoa products, alcoholic beverages, mineral and packaged water and segment of consumer foods is seeing an upward trend. **The sleeping elephant has now started to run,** this quote surely sums up India's current situation in food tech segment. Being a largest segment it also got huge market with many competitors like **AMUL, NESTLE, BRITANNIA, MARICO, PARLE AGRO., ITC LTD, HINDUSTAN UNILEVER, etc.** Who tries to attract consumers with many strategies like advertisement, attractive packaging, using catchy slogans, and tying with the e-commerce sites, etc. The most popular e-commerce category, not surprisingly are fast moving consumer goods as it provide a considerable profit.

The Indian middle class is growing, the number of smart phone users too and thanks to the increase in online users this burgeoning market has serious assets to attract business investment and encourage the development of startups. The main players are **Flipkart, Amazon, Big basket and Grofers** for the marketplace. The online market for buying groceries and other consumable products is a growing sector and this pandemic period has added to its growth, as people can order their products and get them right at their doorstep. The online food ordering business in India is in its nascent stage, but witnessing exponential growth with the startups like **Swiggy, Zomato, Faasos, etc.**

Startups like **Vaidic-farm** which focuses on healthy eating habits with a strategic integration and supply chain model do have a bright future as people are getting aware their health and giving much importance to it. While the pandemic continues to affect everyday life, a healthy approach to food is more important than ever in terms of supporting our mental as well as physical health. Further improvement in the supply chain can directly or indirectly help the farmers to minimize the wastage of their produce and add value to farming.

Agriculture graduates plays a major role in this field by educating the new generation of farmers, innovators, technicians , and business leaders – combining the management science and technology needed to bring food from " farm-to-fork" . As the farming and the food industries are becoming highly technical and automated sectors the agri-graduates can lend a helping hand by filling this skill gap.

Organic Farming & Sustainable Agriculture

Shruti Bhardwaj, *8th Semester, TMAC, Godda*

INTRODUCTION

Organic farming is a system which avoids or largely excludes the use of synthetic inputs (such as fertilizers, pesticides, hormones, feed additives etc) and to the maximum extent feasible rely upon crop rotations, crop residues, animal manures, off-farm organic waste, mineral grade rock additives and biological system of nutrient mobilization and plant protection. But in today's situation, farmers are not very motivated to shift towards organic farming all over the world. Surprisingly, India has the taken the lead in past few years and shown the farmer's association about scopes in organic farming all over the world.

Why organic farming is suitable in India?

- Organic farming requires 30% less input cost, 10% more price for final produce, 90% productivity of conventional agriculture.
- 80% farm holdings are small and marginal and resource poor. For them organic agricultural is attractive system.

Status of organic farming in India:

- India has been the top country which has the highest organic producers since last decade. (FIBL 2007)
- India has seen the 3rd highest increase in organic cultivable land according to a report by International Federation of Organic Agriculture Movements.

Conventional farming vs organic farming

Let's compare various factors upon which we can decide which is better way of farming:

Factors	Conventional Farming	Organic Farming
Yield	More Yield	Less Yield
Soil Quality	Hampers	Do Not Hamper
Profitability	Less Profit	More Profit
Employment of Workers	Less Due to Mechanical Uses	More Employment
Pesticide Residue	Residues Found	No Pesticide Residue

SWOT ANALYSIS OF ORGANIC FARMING

It stand for strength, weakness, opportunities and threats of organic farming. Before transition from conventional farming to organic farming we need to understand the SWOT analysis as given below:

1. **Strength:** sustainability, quality product, high social value, better animal welfare
2. **Weakness:** inadequate technology, expensive products, less awareness, low yield
3. **Opportunities:** increasing market, breakthrough technological innovations, government subsidiaries, environmental factors
4. **Threats:** cheap imports, tantalizing cure from chemical farming, FUD (Fear, Uncertainty, Doubt.

Superfood : Millets

Priyanka Goswami, *8th Semester, TMAC, Godda*

Millets are a group of amall seeded cereals used for consumption and fodder purposes. India contributes 20% of the total world production. Pearl millet, Finger millet, Little millet,Sorghum etc are some of the highly nutritious millet grains cultivated in our country.

They are gluten free grains having low glycimic index and are a rich source of fibre , proteins, essential vitamins and minerals required by our body on daily basis. So incorporating them in our regular diet helps us to lead a healthy lifestyle. They have anti aging and antioxidant properties.

Apart from its health benefits, it is also easier to cultivate compared to other cereals. It requires approximately one-fourth of the total irrigation required by other grains like rice and maize. Input investment is low in its production.

Considering it health benefits and economic security, India proposed to observe year 2023 as **"International Year of Millets"** in the year 2018. This got approved by the United Nations general Assembly and declared the year 2023 as" The International Year of Millets". India was supported by over 70 nations in the general assembly.

The main objective is to make people aware about the contribution of millets to food supply and Nutriton and also to improve the sustainable production & quality of millets. The main focus will be given on enhance investment in research and development and extension services to achieve the above mentioned objective.

Various steps have been taken by our government to promote its production across the country.

Schemes like Initiative for Nutritional Security through Intensive Millets Promotion (INSIMP) in 2011-12 to promote millets as 'nutri-cereals'. The scheme focused on demonstrating the improved production, harvesting technology, value addition techniques in an integrated manner to the farmers.

The government also raised the Minimum Support Price of millets which came out as a boon for the farmers. Further the government also included millets in the Public Distribution System to provide a steady market for the produce.


Why Study Plant Virology?

Aman Mishra, *8th Semester, TMAC, Godda*

Virus diseases affect most economic crops, causing reduction in yield or quality of the produce. The extent of losses depends on many factors and may vary widely. Viruses seldom kill plants outright but virus epidemics during vulnerable stages of crop growth may cause crop failure. The vegetatively propagated crops like potato, sugarcane, banana and other fruit trees may suffer severe losses if raised from infected propagated material. The progressive deterioration of vegetative stocks have resulted in elimination of many commercial varieties.

The impact of viruses on crop losses is more dramatic in annuals as damages are caused within the brief span of cropping season. The grower not only loses the immediate yield but he has to invest for repayment of the diseased plants and wait for returns till they become productive.

There are numerous examples of severe crop losses due to virus diseases. Nearly 75% of the sweet orange trees were wiped out by the citrus tristeza virus in Brazil within a period of 12 years. The fungus borne wheat mosaic and mite borne wheat streak mosaic viruses have caused huge losses in USA. Virus diseases like mosaic, leaf roll have remained a major problem to potato cultivation in various parts of the world.

In terms of agricultural production, the first and foremost objective of plant virology is to control crop losses. This would require correct identification of the virus and the proper understanding of its ecology and epidemiology. The study of plant virology can provide this background.

Virus ecology and epidemiology are intimately connected with the genetic constitution of their hosts, ecology and behaviour of their vectors, and various abiotic and biotic factors like human interference with nature for crop improvement.

The other and fascinating aspect of plant virology is the study of viruses as macromolecules. Viruses have found to have several features in common with macromolecules of healthy plants and animal cells, the study of which is called molecular biology. Research in this field has immensely contributed to our knowledge of the structure and biological behaviour of viruses.

The fascinating molecular biology of viruses, their manifestations in nature as causal organisms of plant diseases, and the involvement of various vectors for disease spread illustrates the importance of plant virology.

Art Gallery

Beauty Rani, RNTAC, Deoghar

Beauty Rani, RNTAC, Deoghar

Debashish Paul, CFS, Gumla

Sukruti Mandal, CFS, Gumla

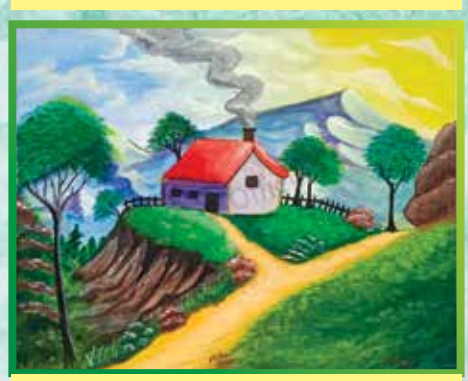
Neha Rani, CFS, Gumla

Shambhavi K. Mishra, CFS, Gumla

Students of CAE, Ranchi

Students of CAE, Ranchi

Munmun Sen, PJMDTC, Dumka



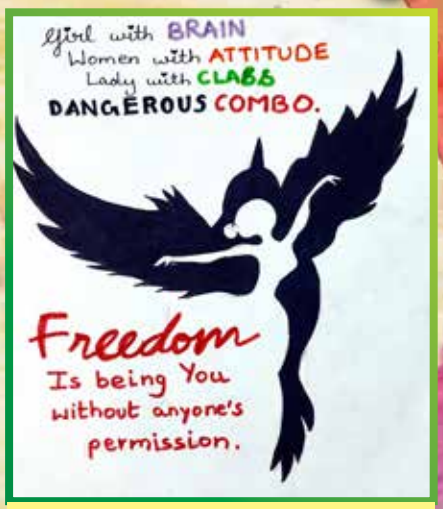
Neha Shree, Hort. College, Khunti

Trishna Mahto, Hort. College, Khunti

Art Gallery

Sukruti Mandal, CFS, Gumla

Manjeet Kr. Yadav, CFS, Gumla



Shreya Lal, CFS, Gumla

Vibha Kumari, Hort. College, Khunti

Vishal Pandey, Agri. College, Garhwa

Shreya Lal, CFS, Gumla

Shreya Lal, CFS, Gumla

Shreya Lal, CFS, Gumla

Shreya Lal, CFS, Gumla

Art Gallery

Neha Rani, CFS, Gumla

Kumari Kajal, CFS, Gumla

Kumari Kajal, CFS, Gumla

Neha Rani, CFS, Gumla

Students of CAE, Ranchi

Students of CAE, Ranchi

Malay, Agriculture College, Garhwa

Malay, Agriculture College, Garhwa

Munmun Sen, PJMDTC, Dumka

जिजीविषा

कौशिक कुमार, *8 वां सेमेस्टर, ति.मा.कृ.म., गोड्डा*

एक रूनझुन रीढ़ के झंकार से,
टूटे तारों के ताल से,
मैं वह मृदंग छेड़ूगां, कि हूंगा सर्वनाश मैं।
पर लिखना मैं ना छोड़ूंगा,
लिखते लिखते जिजीविषा अपने पृष्ठ ना मोड़ूंगा।
है चाहे वो विक्षिप्त श्रृंगार, या चाहे अग्नि विषाद
मैं पग ना अपने डोलूंगा।
चौतन्य सृजन हृदय को मोक्ष दर्शन तो होगी ही,
चाहे वेदना गंभीर हो, चाहे साष्टांग विलीन हो।
दर्पण प्रमाण साक्षात है कि चरित्र सबसे पवित्र हो।
प्रेम हृद में जीवित और सत्य ही तो निश्चल है।
शिथिल समय भी पार हो, ज्योति जग में अपार हो।
यह क्षनिक अंतर्द्वंद का अभिशाप है।
कि विषाद मुक्ति के पराकाष्ठा मे,
वह रूद्र रस मैं घोलूंगा
कि स्मरण कर प्रज्ञा मन में,
इस तिमिर का भी नाश हो।
मैं ऐसा रूनझुन छेड़ूंगा, कि हूंगा विलय प्रकाश में।

जीते चल

प्रेरणा भारती, *5 वां सेमेस्टर, ति.मा.कृ.म., गोड्डा*

गंवा मत खबसुरत पल
झठा अतीत, अदृश्य है कल,
जो है अभी, यही है पल
जीते चल, जीते चल।
चिंता का स्रोत भववष्य
अतीत तझे जाएगा छल,
परिवर्तनशील संसार में
वर्तमान सदा अचल।
भविष्य खुद होगा सुखद
परिश्रम की ताप में जल,
गंवा मत खुबसुरत पल जीते चल, जीते चल।

वो सुभाष चंद्र बोस एक अपने बोस थे

अंकित मोहन मिश्रा, *3 रा सेमेस्टर, ति.मा.कृ.म., गोड्डा*

शब्द नेता को यहाँ जिसने किया था सार्थक।
आजाद भारत के लिए थे अग्रणी वो प्रार्थक।
व्यक्त करना है कठिन शब्दों में जिनको ढालकर।
बात अपनी सिद्ध करने वाले वो सिद्धार्थक
जो बोलते थे तब जहाँ रहते सभी खामोश थे।
वो सुभाषी चंद्रमा बस एक अपने बोस थे।
बिना उनके देश का खाली पड़ा आलिंद है।
माँ भारती के ख्वाब के अब भी वही मानिंद है।
उनका ही नारा देश का एकमात्र नारा बन गया
जो गूंजता अब भी हमारे कान में 'जय हिन्द' है।
मन में रखे आजाद भारत का इरादा ठोस थे।
वो सुभाषी चंद्रमा बस एक अपने बोस थे।

जीवित प्राण

कौशिक कुमार, *8 वां सेमेस्टर, ति.मा.कृ.म., गोड्डा*

निर्वाण नभ सब चर अचर,
निर्गुण सह पंचतत्व मिले।
क्यों अंत प्राण तो काल तिष्ट,
जयों शिथिल प्राण की अंत पृष्ठ।
ब्रह्म सार का सत्य मरण,
तो कैसा यह विलाप करन?
जों नक्षत्र ही तन-कण दिए,
तो काहे यूं भयभीत जीऐं?
तड़ित विहीन जो माटी है,
कभी ना यातना पाती है।
है प्राण शेष तो लाभ करो।
मृत्यु काल जो आएगा।
अनंत शून्य जब लाएगा।
संतुष्ट प्राण तुम त्याग करो।

प्रकृति

सुम्बुल फैजानी, *3 रा सेमेस्टर, ति.मा.कृ.म., गोड्डा*

जीवन प्रदान करती है हमें प्रकृति
वह सिखाती है हमें संस्कृति
इसमें रहते हैं जीव जंतु
और रहते हैं पशु पक्षी
प्रकृति में मुख्य पेड़
देते हैं हमें छाव फल और फूल
मेरे मन को भाता है
यह जीवनदायिनी कहलाता है।
प्रकृति को ना संभाला हमने
तो खतरे में है जीवन सबके
हमारी सांसे अटकी है इसमें
तो बढ़े चलो इसे बचाने
हमको यह एक सीख सिखाता है
मनुष्य मिलजुलकर रहता है
इसमें उगते फूल भांति भांति
नाम इसका प्रकृति।

गुरु उसका नाम है।।

ऋचा सिन्हा, *3 रा सेमेस्टर, ति.मा.कृ.म., गोड्डा*

मैं वह बीज हूं जिसे मिट्टी में कभी बोया गया था
दुनिया जहां से दूर अंधेरों में कहीं खोया हुआ था
नादान मैं भला बुरा नहीं जानता
इस दो चेहरे वाले दुनिया को नहीं पहचानता
ये रोशनी, ये सपने इन सब से मैं अनजान था
जिसने मेरी आंखें खोली वह एक महान था
गुरु उसका नाम था।।
नासमझी को समझा, दुनिया दिखाया
सही राह पर उसने चलना सिखाया
जब भी मैं कहीं फैसला
उन्होंने ही मुझे संभाला
वह महज एक इंसान है
पर सबसे ऊंचा उसका मान है
गुरु उसका नाम है।

किसान

आंचल कुमारी, *सत्र : 2021-2022, कृषि महाविद्यालय गढ़वा*

निकलते हैं जो अपने घरों से
सुरज की लाली से पहले
चिड़ियों के जगने से पहले,
तपती गर्मी ठिठुरती सर्दी में
मेहनत करते जाते हैं
सुखी बंजर भूमि को उपजाऊ बनाते हैं।
कठिन हालातो से जो हार नहीं मानते
तभी तो ऐ किसान कहलाते।।

कभी बाढ़ तो कभी सुखे को ऐ झेलते हैं
हमारी रोटी के लिए कुदरत से ऐ लड़ते हैं।
चलते हैं जो खाली पैर,
सर पे ले परिवार का बोझ
लेते नहीं कभी ऐ छुट्टी, नाही कभी ऐ थकते हैं
तभी तो ऐ किसान कहलाते।।

दिन रात जो मेहनत करके
देश का थाल सजाते हैं
ऐसे ही वीर तो, धरती पुत्र कहलाते हैं।
कृषि और किसान है जहां देश की शान
तभी तो कहते हैं, मेरा भारत महान।।

किसान सबका पर उसका कौन?

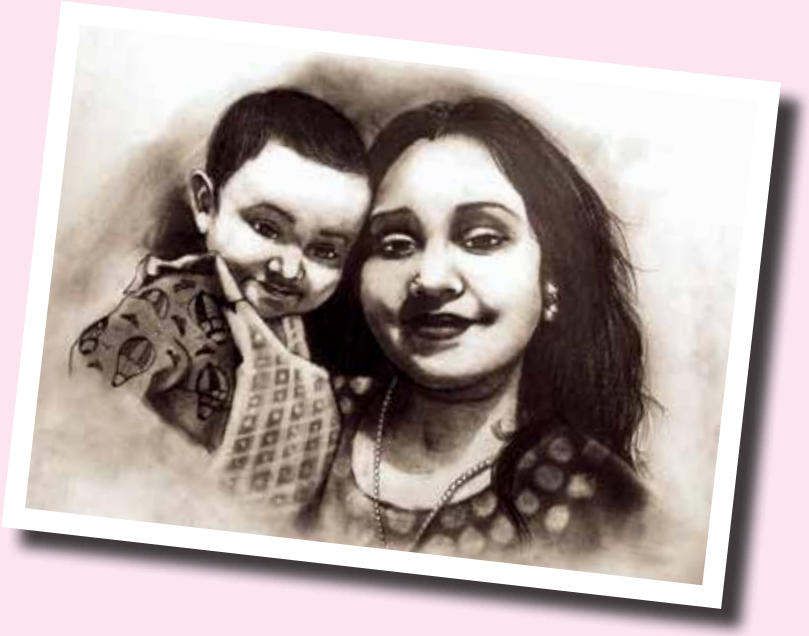
रितिक राज, *5 वां सेमेस्टर, ति.मा.कृ.म., गोड्डा*

किसान - अन्न दाता।
किसान - भूख सहता।
किसान - दुख सहता।
किसान - मिट्टी से रोटी बनाता।
किसान - कैंसर सहता।
किसान - रस्सी से लटकता।
किसान - 18.4 जीडीपी वृद्धि में देश का साथ देता।
किसान - मौसम से लड़ता।
किसान - पानी के लिए लड़ता।
किसान - बैंक के ताने सहता।
किसान - सरकार का सहायता न मिलता किर भी अपना काम करता।
किसान - अपने बच्चों को दाने का मोहताज बना कर दूसरों का पेट बखूबी भरता है।
किसान - जब किसान रोता तो दुनिया कहती फूड क्राइसिस आ गया।
किसान - इसी किसान ने भारत को दुनिया का गेहूं और चावल का दुसरा सबसे बड़ा उपदायक बनाया।
किसान - इसी किसान ने महाराष्ट्र को पहला दाल का सबसे बड़ा उपदायक बनाया।
किसान - इसी किसान ने हमारे भारत को भूखमरी से बचाया।
किसान - इसी किसान ने अमूल जैसे बड़ी कम्पनी को जन्म दिया।
किसान - इसी किसान ने पूरे दुनिया को भारत के आम का कायल बनाया।
किसान - और इसी किसान ने खुद रेशटॉरेन्ट ना जाके दूसरों को रेशटॉरेन्ट भेजा।
सद्गुरु ने कहा **है किसान से बड़ा कुशल कोई नही और जो पेट भरे वह भगवान होता है।**

माँ

नेहा श्री, *उद्यान महाविद्यालय, खूंटपानी (चाईबासा)*

जिस दिन माँ के आखों से ओझल होती हाँ
दिल उनक धड़कत है जोरो से याद है,
सारे दूख-दर्द-परेशानिया दूर हो जाते है।
जब रहता सर पे उनके हाथ है,
खुशियों के पिटारे वो रखती अपने साथ है।
माँ तेरे होने से ही मेरा संसार है।
हर दम बच्चों का रखती आप ख्याल है,
मेरी दूनिया सवारने में आपका ही हाथ है।
भगवान से भी बढ़कर माँ का स्थान है,
क्योंकि हमारी चिंता में वो रहती सुबहो शाम है।
माँ के डाँट में रहती एक अलग सी मिठास है,
जिसे चखने को दिल करता मेरा बार-बार है।
माँ तेरे हाथ का खाना, क्या लाजबाब है,
उसके आगे बड़े होटल का रवाना भी बेस्वाद है।

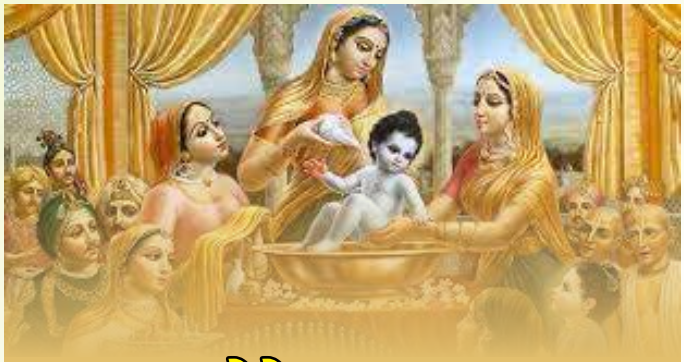


ऑनलाइन रिलेशनशिप

अर्जुन कुमार अग्रवाल, *पीएच.डी. छात्र, 2 रा सेमेस्टर, जी.पी.बी. विभाग, आरएसी, रांची*

दूर रह कर भी पास है
रिश्ता बड़ा ये खास है
चहरे में फरेब का मुखौटा
आंखो में नकली आंसू
और होठों पर झूठी मुस्कान की दुकान है
कीमत अदा करते करते बिक जाओगे
महंगी बड़ी यहां समान है।।

कोई तो मिल जाए, सबकी यही काश है
जब मिले ना कोई, तो हो जाए हताश है।
जिस भोगविलास की तुझे आश है
करेगा जो वो एक दिन, वह तेरा ही विनाश है।
पाने की तू उसे, करता रोज प्रयास है
इसके लिए तू लेता, ना एक भी अवकाश है।
जिस सुकून की तुझे तलाश है
एक मायाजाल है वो,क्या तुझे ये आभास है?



मेरे कान्हा

नटखट सा एक बालक, है सांवला रंग
प्रेम करे राधा से, लीला करे गोपियों के संग
बंशी बजाए इतनी मधुर की, झूम उठे हर एक अंग
चुरा के माखन खाएं, करे यशोदा मईया को तंग
देख के इनकी लीला, हो जाए सब मलंग

होली में रंग बरसाए, उड़ाए मकर में पतंग
देख के इनकी महिमा, दानव भी रह जाए दंग।
करके असुरो का नाश, जीते हर एक जंग।।

बिन मौसम बरसात

अंधेरी रात ये बिन मौसम बरसात
ना जाने करने आई किससे मुलाकात
है कोई माया, या इंद्र साक्षात
जरा रखना ऐतयात, है वो अज्ञात
बदल ना दे तुम्हारे सारे ख्यालात
ये है बिन मौसम बरसात।।

क्षमता इसमें है बदलने की सारी कायनात
कारनामें इसके है जग में विख्यात
मिटा देगी सारा जहां,
या करेगी कोई नई शुरूआत
जरा रखना ऐतयात, है वो अज्ञात
ये हैं बिन मौसम बरसात।।

माँ

अपने आंचल से जो टाले, हर एक अपशकुन
बिन कुछ पुछे ही, उसे हर कुछ होता है मालूम
गोद में जिसकी सो कर, मिले असीम सुकून
आंखो में जिसके, बसता है सिर्फ करूण
अपनी इच्छाओं को पैरों पर रखे
पूरी करे अपने बच्चों का, हर एक हुकुम
अपने बच्चो कि सफलता देख,
जीसके दिल में भर जाए तबस्सुम।
जिसमे भरा है सिर्फ सरगुन, है एक भी ना अवगुण
जिसका प्रेम है निस्वार्थ और अमूल्य
अतुल्य है वो माँ, देवतुल्य है वो माँ।।

पहचान यही

शादाब हुसैन, *कृ.वि., गढवा, बीएयू, रांची*

जिंदगी से कभी घबराए नहीं,
फैसलों के बाद कदम पीछे घुमाएं नहीं।
उलझकर फंस जाते थे समय के इस चक्र में पहले,
है वक्त बदलना और किस्मत से लड़ना सिखाया यही।
पर्वत तो बहुत मिलते हैं जीवन में,
पर बयार सा आगे बढ़ना सिखाया यही।

अनजान सा रिश्ता था पौधों से,
विज्ञान को जन कल्याण में लाना सिखाया यही।
डर लगता था शिक्षकों से, सवाल करने में पहले,
अब सीनियर्स ने समाधान निकालना सिखाया यही।

अंधकार सा लगने लगा था जीवन,
तब चिराग सा जलना सिखाया यही।
गेंद फिसल जाती थी हाथों से पहले,
अब मेडल पकड़ना सिखाया यही।
बंद थे हुनर के पंख पिंजरों में जिनके,
उसे तोड़ कर जग में उड़ना सिखाया यही।

बिरसा कृषि विश्वविद्यालय कि निर्माण है बड़ी,
सभी विद्यार्थियों एवं प्रोफेसर की शान है यही,
आ रहा है प्राध्यापकों की शिक्षा का परिणाम सही,
और बनता जा रहा है अब, झारखंड का गौरव और अभिमान यही।
चमक आती है रत्नों की ऐ.सी.जी. में हर कहीं,
बनेगा कृषि महाविद्यालय गढ़वा भारत की एक मिसाल नयी।

झूठी मुस्कान

शाम्भवी कुमारी मिश्रा, *3 रा सेमेस्टर, मा.वि.म., गुमला*

झूठी मुस्कान का भी क्या कहना?
उसके कष्ट छुपाने के अंदाज का क्या कहना?
दिखावे का यह जीवन,
उसके इस बात को साबित करने के अंदाज का क्या कहना?
उसकी झूठी मुस्कान देख पचता नहीं लोगों को,
कितना खुश, कितना खुश,
की हाय लग जाता उसको।
दर्द उसकी भी समझो कोई,
उसके जज्बातों को समझो कोई,
उसके पास बैठ उससे भी बातें करो कोई,
दर्द वो दिखाता नहीं, चौन की नींद वो लेता नहीं।
सुकून की भीख माँगता खुदा से,
फिर भी सुख-चौन मिलता नहीं उसको।
ऐ खुदा सुन ले मेरी पुकार,
दूर कर दे उसकी नकाब को।
बेनकाब कर खुशी दिला दे उसको,
झूठी मुस्कान की चमक जब उसकी इतनी निराली है।
तो ए खुदा चाँद सा चमक दिला दे ना उसको,
बेनकाब कर दे उसके चेहरे को,
बेनकाब कर दे उसके चेहरे को।

याद बहुत आती है

राजपूत शिवम, *डेयरी टेक्नोलॉजी कॉलेज, हंसडीहा*

के अब जो तुम नहीं हो, तुम्हारी याद बहुत आती है

अक्सर सवेरों के बच के निकलता हूँ
रात की तन्हाइयों में चुपके से खुद से मिलता हूँ
अंधेरों की देहलीज मुझे हर दम अपनाती है।
अब जो तुम नहीं हो, तुम्हारी याद बहुत आती है

मैं ज्यादा बोलता नहीं था, ये तो मालूम था तुम्हें
एक दूसरे से कहने की जरूरत शायद नहीं थी हमें
क्या था मन में तुम्हारे, मुझे रह रह के ये बात सताती है
अब जो तुम नहीं हो, तुम्हारी याद बहुत आती है।

आज भी अपने खयालों में तुमसे रूठ जाता हूँ
तुम्हारी तस्वीर के सामने कभी कभी टूट जाता हूँ
फिर माँ हाथ थाम के मुझको समझाती है।
अब जो तुम नहीं हो, तुम्हारी याद बहुत आती है।

हम दोस्त थे तुमने कहा था, दोस्ती निभाने के उम्र अभी तो शुरू हुई थी
तुमको सुनाने को मेरे पास कहानियाँ कई थीं
अब तो दिल की आह भी खामोशी में सिमट जाती है।
के अब जो तुम नहीं हो, तुम्हारी याद बहुत आती है....

मित्रता

अमरजीत तिवारी, *4 था सेमेस्टर, आरएसी, रांची*

मित्रता वो प्याला है
जिसने इसे पी डाला है।
रोम-रोम पुलकित हो उठा
हुआ नया सवेरा है।

मित्रता है अनमोल रत्न
आओ हम सब मिलकर करे इसका जत्न
यह रिश्ता है जाति भेदभाव से परे
नित नूतन आयाम गढ़े।।

मित्रता से मिलता है हमको मित्र
जिसके बाद नहीं रहता कोई फिक्र
मित्रता होती है निःस्वार्थ
नहीं होता निहीत इसमें कोई स्वार्थ।

मित्रता होती है बड़ी पावन
साथ बिता हर पल लगता है मनभावन
मित्र होता है सच्चा साथी
यह है सुख-दुख में सहपाठी।।

किसान

किसान हैं हमारे देश का अभिमान
यह नही हैं कोई आम इंसान हैं
इनके अनेक नाम
अन्नदाता, कृषक और किसान।

ये है हमारी देश की नींव
बिन इनके नही रहता कोई सजीव
आओ मिलकर करें इनकी नमन
धन्य हैं कृषक का मन।।

आओ हम इनको उचित स्थान दिलायें
उनको सम्मुचित सम्मान दिलाये
एक ऐसा देश बनाये
मिलकर कृषक और कृषि को अपनायें।।

किसान को मिले एक उचित स्थान
यही है मेरी आपसे माँग
क्योंकि इनके बिना नही हो
सकता हमारा कोई काम।।

बचपन का वो भारी बस्ता..... अच्छा था

स्पृहा सिंह, *आरएसी, रांची*

बचपन का वो भारी बस्ता..... अच्छा था

जब भार से सिर्फ कंधे झुका करते थे
पर आंखों में अरमां के सहारे हुआ करते थे
बचपन का वो बस्ता भरी था मगर अच्छा था.....

जब हर सुबह पापा सोचते थे तुझे उठाऊं या बस्ते को
तब शुरू होती हम पर सितम की कहानियां
पूरे रास्ते हम टीचर की शिकायत किया करते थे
फिर पापा को हम पर तरस आ जाती थी और
उस दुकान से वो हरी वाली टाफियां मिल जाया करती थी
बचपन का वो बस्ता भरी था मगर अच्छा था.....

जब क्लास रूम में हम बस्ते का भार तोला करते थे
मेरा बस्ता सबसे भरी है इससे बहुत खुशी मिलती थी
उस भार पर हम ऐसे इतराते थे जैसे
पूरी स्कूल की पढ़ाई हम पर ही निर्भर है और
बाकियों के बस्ते में तो सिर्फ पिज्जा और बर्गर है
फिर कोने में जाकर थोड़े सुस्ता लिया करते थे
पढ़ाई, दोस्त, खेल और टिफिन की भागदौड़ में
सबकुछ फिर भूल जाया करते थे
बचपन का वो बस्ता भरी था मगर अच्छा था.....

जब भार से पैरों में दर्द तो होता था
पर मन में छाले नहीं पड़ते थे
तब एक बस्ते के टूट जाने पर
हम नया बस्ता खरीद लिया करते थे
और उस नए बस्ते की खुशी में
सुकून से सो जाया करते थे
बचपन का वो बस्ता भरी था मगर अच्छा था.....

खेती विद्यार्थी की जीवन–रचना

खुशबू कुमारी, *सत्र : 2019-20, आरएसी, रांची*

खेती के छात्र की जीवनरेखा,
बदलते रंग, खुशियों की देखा।

सुबह उठते ही खेत में जाते,
किसानों के साथ मिलकर बाते।

हरे-भरे खेत में पांव रखते,
स्वदेशी खेती का सपना देखते।

मिट्टी की खुशबू से मोहित हो,
खेती के मध्यम से जीवन को।

बीज उगाते हैं, पौधों को पालते,
बारिश की आशा से धरा बहलते।

महिनों के कामों में निरंतर,
खेती का संगीत गाते अक्सर।

जीवन की मुश्किलों का सामना,
खेती के साथ हर रोज करते।

चाहे धूप हो या बरसात की बौछार,
हमेशा खेती की तरफ होती रहे आकर्षक आकर।

वृद्धि करे खेती, भारतीय कृषि को,
छात्र हम ये संकल्प लें लगातार।

खेती के सबको सीख लें और सिखा दें,
बढ़ते किसानों को हमारे बच्चों तक पहुंचा दें।

खेती के छात्र का जीवन समर्पण,
सदैव अमर रहे विश्व भर में।

खुशहाली सबको दें खेती की ख़ुशबू,
ये छात्र जीवन रहे सदैव अमर यूँ ही।

गोबर का मूल्यवर्धन

सचिन कुमार, *8 वां सेमेस्टर, आरएसी, रांची*

हमारी झारखंड की संस्कृति में गाय एक अभिन्न अंग रही है। हर युग में इसका महत्व हमारे सामने उभरकर आता है। बदलते दौर में हमारा हमारी गायों के साथ का नाता टूटता गया, जब देसी गायों की जगह क्रॉस नस्लों ने ले ली। माटी के घर के बदले पक्के घर आ गए और गोबर खाद के बदले रासायनिक उर्वरक।

एक बार फिर हमारी देशी गायों का महत्व हमारे जीवन देखने लिए मिल रहा है। जब दुनिया भर में कार्बन उत्सर्जन और प्लास्टिक पर रोकथाम को लेकर अलग-अलग देश कड़े कानून बना रहे है तब भारत में इस समस्या से लड़ने के लिए एक नयी कलाकारी की खोज हुई है। यह है गोबर से की जाने वाली शिल्पकारी, जिसमें हम भारतीय गोबर से अलग-अलग शिल्प गढ़ रहे है। आप दीपावली में गुजरात और उत्तर प्रदेश के कुछ जगहों में जाएंगे तो वहाँ के घरों में गोबर से बने दिये और पूजा सामाग्री में गोबर से बने धूप-अगरबत्ती भी पाएंगे, छतीसगढ़ की होली में हर्बल गोबर गुलाल और होलिका दहन में गोबर काष्ट पाएंगे। गणेश चतुर्थी में अगर आप महाराष्ट्र और हैदराबाद जाएंगे तो वहाँ गोबर से बने गणेश की प्रतिमा भी पाएंगे। सामूहिक पंडालों में भी गणेश की गोबर से बनी विशाल प्रतिमाएँ लगाई जा रहीं हैं, पर्यावरण और हमारे जल के श्रोतों के लिए भी लाभकारी होगा। गोबर से आज भांति भांति के दिये, गमले, ग्लास, सजावट के बनाए जा रहे है।

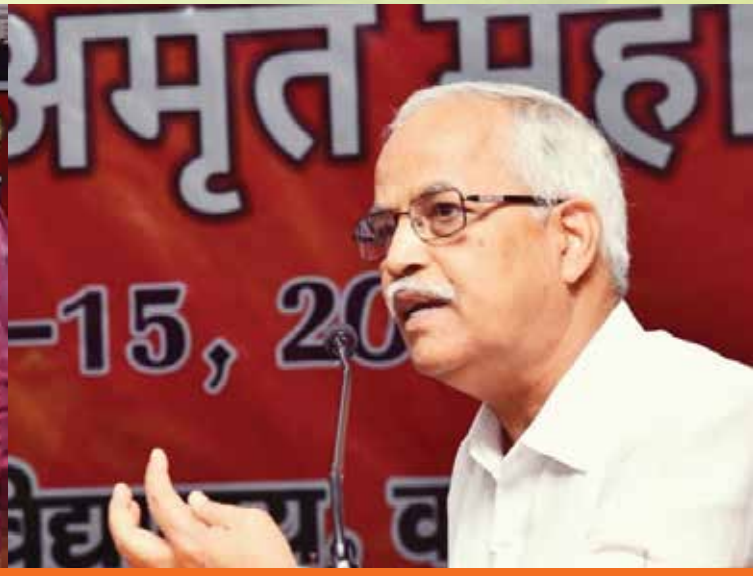
इसे देश के अलग अलग किसानों से अपने प्रयोग से अलग अलग सामाग्री मिलकर अपनी पहचान बनाई है। कोई केवल गोबर को आकार देकर उसे गोएठे की तरह सूखा रहा है। कोई इसमें तालाब की मिट्टी में मिलाकर इसे और बारिक और मजबूत बनाने की कोशिश कर रहा है। तो कोई गोबर को मिट्टी और पुवाल के साथ मिलाकर गोबर काष्ट बनाने की कोशिश कर रहा है, इससे मोबाइल के साथ इस्तेमाल हेतु एंटि-रेडीयेशन बायो चिप बनाया है। यह एक चतुर्भुज सूखे गोबर का टुकड़ा होता है जिसे मोबाइल के पीछे चिपकाया जा सकता है। राष्ट्रीय कामधेनु आयोग का यह दावा है कि यहा मोबाइल के पास रखने से उससे निकालने वाली रेडीयेशन को कम करता है और सकारात्मक ऊर्जा का संचार करता है।

अगर हम गोबर का मूल्यवर्धन करके गमले, दिये और घरेलू समान बनाकर बेचे तो यह हमें दो से तीन हजार प्रति किलो तक मूल्य प्राप्त हो सकता है। और अगर हम मोबाइल बायो चिप बनाए तो हम दस हजार तक का मूल्य प्रति किलो दे दर से भी प्राप्त कर सकते हैं।

शहरों में गाय के दूध का भाव साठ रुपये प्रति लीटर है और एक गाय एक साल में अधिकतम नौ से दस महीने तक दूध दे सकती है। एक देशी गाय के गौमूत्र का भाव बाजार में डेढ़ सौ रुपये है और गाय गौमूत्र हर दिन देती है। यह गौमूत्र बाजार में अलग अलग अर्क के नाम से बिकती हैं। प्रमाणित हो गया है कि भारत के देसी गायों के मूत्र को कैंसर विरोधी, एलर्जि विरोधी, कवक विरोधी और संक्रामक विरोधी पाया गया है और यह सभी दावों को संयुक्त राष्ट्र अमेरिका पेटेंट ऑफिस से पेटेंट प्राप्त है। ऋग्वेद में मधु और सुश्रुत संहिता (45/221) और चरक के 100वें श्लोक में इसके विभिन्न औषधीय गुणों का जिक्र है।

झारखंड प्रदेश में कुल मवेशियों की संख्या एक करोड़ बीस लाख की है जिसमे तीस लाख देसी नस्लें हैं। जहां प्रतिदिन करोड़ों किलो गोबर का उत्पादन होता है, गोयठा और खाद के इस्तेमाल के बाद भी आधे से अधिक गोबर का कोई और उपयोग नहीं हो पाता। गोबर से शिल्पकारी इसके मूल्यवर्धन की एक नयी तकनीक है, जो भारत के कई राज्यों में की जा रही है। हमारा गायों के साथ नाता प्राचीन रहा है और हर सोहराय में उनको सदियों से पूजा है। इसलिए झारखंड में इस तकनीक का भविष्य उज्ज्वल है। यह एक अनूठा ग्राम-उद्योग का अवसर है जिसमे ग्रामीण लोग एवं महिलाएं इसको सीखकर गाय के प्रतिफलों से एक जीरो कॉस्ट व्यवसाय बना सकते हैं और अपना जीवन बेहतर बना सकते हैं।

Azadi Ka Amrit Mahotsav



Under the National Service Scheme (NSS) at Birsa Agricultural University, Azadi Amrit Mahotsav fortnight was organized from 01 to 15 August 2022. The program was inaugurated by Vice Chancellor Dr Onkar Nath Singh. In his address, he highlighted that like the importance of nectar in life, special importance of the nectar festival of independence in maintaining the independence and integrity of the country. Dean Agriculture Dr. S.K. Pal, Dean PGS Dr. M.K. Gupta, Dean Veterinary Dr. Sushil Prasad, Dean Forestry Dr. M.S. Mallick and DSW Dr. D.K. Shahi also expressed their views.

Under this Amrit Mahotsav fortnight, 7 cultural competitions were organized in all the 11 colleges of the university with the participation of abundant students. For the selected/winning students from colleges, 7 cultural competitions were organized at the university headquarters. Special lectures and cultural programs based on 'Ek Sham Shaheedo Ke Naam' and Prabhat-Bheri were organized at Headquarter level. The winning team of folk dance competition of various colleges performed dance art. Odissi dance by the girls of Devashruta Odissi Academy and the "Kunjaban" troupe led by eminent Nagpuri folk singer Padma Shri winner Mukunda Nayak enthralled the people with Nagpuri folk dance.


राष्ट्रीय सेवा योजना
आज़ादी का अमृत महोत्सव
(अगस्त 01–15, 2022)
बिरसा कृषि विश्वविद्यालय, काँके, राँची


राष्ट्रीय सेवा योजना
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राष्ट्रीय सेवा योजना


आज़ादी का
अमृत महोत्सव
राष्ट्रीय सेवा


राष्ट्रीय
आज़ादी का

7th Convocation of Birsa Agricultural University, Ranchi

Birsa Agricultural University, Ranchi organized 7th convocation on February 6, 2023. Total of 1139 students were awarded degrees in undergraduate, post graduate and PhD courses run by the university during the year 2019, 2020 and 2021. Out of the 3 passed out students (One in a year) were awarded the Chancellor's Gold Medal given by the Hon'ble Governor Sri Ramesh Bais ji. A total of 21 students, including 12 students in the undergraduate and 9 students in the post graduate course of the university were awarded the title of University Gold Medal by the Hon'ble Governor. For the first time, students of 7 new colleges established under BAU in the last 6 years were awarded graduation degree and university gold medal.

On the occasion, **Hon'ble Governor Shri Ramesh Bais** emphasized on encouraging integrated farming system, every agriculture graduate visiting 5 villages to understand the conditions, problems and priorities of the farmers and find solutions to ensure regular and sustainable income to the farmers.

In the convocation address, **Dr. Himanshu Pathak, Director General of the Indian Council of Agricultural Research**, told the students to dedicate themselves for better work in the society and bring laurels to their teacher's institution, village, city, town or province by their contribution. He said that the Prime Minister has set a target of bringing India into the category of a developed nation by the year 2027, in which agriculture, farmers and agricultural scientists will contribute significantly.

In the welcome speech, **Vice Chancellor of BAU, Dr. Onkar Nath Singh** emphasized on the students to think in the direction of starting self-employment instead of running behind jobs and also become job providers.

During convocation, 482 students in B. Sc. (Hons.) in Agriculture, 45 students in B. Sc. (Hons.) in Horticulture, 37 students in B. Tech in Agricultural Engineering, 103 students in B. Sc. (Hons.) in Forestry Science , 45 students in B. Tech. in Dairy Technology, 83 students in B. V.Sc. (hons.) , 50 students in B. F. Sc. (Hons.) & 43 students in Bachelor of Vocational course were awarded the degree.

90 students in M. Sc.(Agriculture), 20 students in M. V. Sc. , 42 students in M. Sc. (Forestry), 13 students in M. Tech. (Agriculture Engineering), 22 students in M. Sc. (Biotechnology) and 38 students MABM were awarded degrees. Under PhD course, 20 students were awarded degree in Agriculture, 1 in Forestry and 4 in Veterinary Science.


BIRSA AGRICULTURAL UNIVERSITY, RANCHI
7th Convocation
FEBRUARY 2, 2023


College of Agricultural Engineering
Ranchi

Participation in Agri-Unisports 2023

Birsa Agricultural University, Participated in AGRI-UNISPORTS 2023 at Hisar, Haryana, CCS HAU from 20th February, 2023 to 24th February, 2023. The main aim of this meet was to bring across students of all agricultural colleges all over India to come and meet at a particular place so that they could get to know each other, their environment, their culture, their academics and pattern of study with the help of a healthy competition and sportsmanship. The participating students also get to know their ability and where they stand in terms of their respective sports.

Distinguished Agriculturists, scientists and eminent personalities were present there as guests and facilitated the prize winning students. Dr B.R. Kamboj (VC, CCS HAU,Hisar) and Dr. Devender Singh (DSW, CCS HAU, Hisar) addressed the students, coaches, managers and staff in the inauguration ceremony held in which they motivated and wished the students the best of luck and success and they also declared the competition open.

The AGRI-UNISPORTS meet concluded with happy faces and different colleges bagging up a lot of prizes and motivation to do better on the next one.

BAU Team, led by team manager Dr. B.K. Aggarwal, Coach Mr. Sher Khan with students sports secretaries and a team of 20 students participated in various sports events showed a splendid performance and gave a tough competition to other Universities. The university basketball team qualified for qualifiers and the relay team qualified for the Quarterfinals.

Satish Pahan one of our student who represented University in long Jump stood second and bagged a silver medal, jumped to a length of 6.35m.

The other sports events were also well completed and gave a satisfactory performance.

Participating students also got a chance to visit fields, farms and other important operational areas of CCS HAU, Hisar organised by our team manager Dr. B.K. Agarwal, which they will cherish forever as an visit to campus cum educational tour.

University sports coordinator, Dr. Niraj Kumar selected the best students with the help of selection committee who could compete further and encouraged the students to do their best.

It is must to mention that the trip was earlier cancelled but with the support of Hon'ble Vice Chancellor, Dean faculty of Agriculture (Former DSW) and University sports coordinator students could lastly managed to go to attain AGRI-UNISPORTS 2023.

Overall it was a successful sports meet for students, teachers and University. It was satisfactory as well as proud moment for Birsa Agricultural University, Ranchi.

BAU Annual Sports - 2023

Faculty of Agriculture organised an Annual Sports and Games Meet 'KHEL 2023' on 21st and 22nd March, 2023 and further continued up to 1 week for other indoor and outdoor games and activities.

Eminent personalities were invited as guests, who related to sports and agriculture who motivated and facilitated the students and encouraged their hard works. Hon'ble VC, BAU Dr. O.N. Singh, Dr. D.K. Shahi (Dean, Agriculture), Dr. Sushil Prasad (Dean, Veterinary), Dr. P.K. Singh (Director Research), Dr. M.K. Gupta (Dean, PGS) and others were present on the occasion to motivate the students and facilitate them.

For his immense performance in AGRI-UNISPORTS-2023 held at Hisar, Mr Satish Pahan student of Ranchi Agriculture college, batch 21-22 was facilitated by Hon'ble VC Dr. O.N. Singh.

Dr. Z.A. Haider was present among for the closing ceremony to embark it's success. The event was conducted and was successful under the guidance of Sports Incharge, Agriculture, Dr. Niraj Kumar. The event would not have been possible without all committee members, who took out their precious time to guide the students and participate in the events.

Students and faculty competed in a healthy competition and showed a wonderful performance which was outstanding in overall level. Where Satish Pahan was chosen best athlete (Male) and Priya Manki was chosen best athlete (Female).

On march 31st, Hon'ble Vice Chancellor, Dr. O.N. Singh, DSW BAU, Dr. B.K. Agarwal, Dean, Agriculture, Dr. D.K. Shahi and Sports Incharge, Agriculture, Dr. Niraj Kumar facilitated the winners of other indoor and outdoor games and activities.

The annual meet was concluded with facilitation of winners and sharing a token of love to all the members of the committee who were involved in making this event a successful one.

BAU Annual Sports - 2023

Faculty of Veterinary Sciences organised an Annual Sports and games Meet 'Aakhet 2023' on 21st and 22nd March, 2023.

Eminent personalities were invited as guests, who related to sports and veterinary who motivated and facilitated the students and encouraged their hard works. Hon'ble VC, BAU Dr O N Singh Sir, Shri Madhukant Pathak (Treasurer, Jharkhand Olympic Association, Athletics), Dr Sushil Prasad (Dean, faculty of Veterinary), Dr MK Gupta, (Dean, PGS) and other dignitaries were present on the occasion to motivate the students and facilitate them.

The event was conducted and was successful under the guidance of Dr Alok Kumar Pandey, Dr Pravin Kumar and Dr Abhishek Kumar. The event would not have been possible without all committee members, who took out their precious time to guide the students and participate in the events.

Christmas Gathering


Sarhul Puja - 2023




Students' Activities

A view of World Environment Day Awareness Programme

Students' study cum educational tour of CFS, Gumla

A view of educational cum study tour of RAC students'

A view of educational cum study tour of RAC students'

Faculties and students' celebrating World Soil Day

8th Semester students' of RAC under ELP Programme on Mushroom

CAE, Ranchi students' with small implements under ELP programme

A view of self-defense art training of BAU girls students

Students' Activities in Media

कृषि छात्र अभिनव कृषि तकनिकी से जुड़े : डॉ एके सरकार

रांची, 24 फरवरी : बिरसा कृषि विश्वविद्यालय के मृदा विज्ञान एवं कृषि रसायन विभाग में शुक्रवार को अम्लीय भूमि की समस्या एवं निदान विषय पर व्याख्यान का आयोजन किया गया। व्याख्यान के पश्चात जाने-माने कृषि वैज्ञानिक एवं पूर्व डीन सहोदरपुर (बीएयू) है। इस व्याख्यान में कृषि संकाय

बिरसा कृषि विवि के दीक्षांत समारोह में बोले राज्यपाल रमेश बैस

बेहतर उच्च कृषि शिक्षा पर चिंतन की आवश्यकता

तीन विद्यार्थियों को चांसलर गोल्ड मेडल, 24 को गोल्ड मेडल व 1139 को मिली उपाधि

आईसीआर परिसर में हॉस्टल व मेस भवन का उद्घाटन

बीएयू: झांकी में हर-भरे पेड़ का महत्व बताया

बिरसा कृषि विवि के फॉरेस्ट्री विभाग के 230 छात्रों ने झांकी निकाल पर्यावरण सुरक्षा पर जागरूकता अभियान चलाया। नेतृत्व डीन वानिकी डॉ एमएस मल्लिक ने किया।

Enthusiasm among students due to career counseling organized in BAU

बिरसा कृषि विवि में छात्रों के लिए सबसे खुशी का अवसर : डॉ ओंकार नाथ सिंह

बीएयू में कैरियर काउंसीलिंग से छात्रों में विशेष उत्साह

Placement Fair cum BAU - Industry Meet – 2023 organised

बीएयू के विद्यार्थियों को मिले करियर में सफल होने के टिप्स

मुख्य संवाददाता। बिरसा कृषि विवि) में विद्यार्थियों के लिए करियर का आयोजन रविवार को किया गया। एग्रीकल्चर डॉ एके सरकार ने ों को लाईब्रेरी में करियर सर्वेधी का अध्ययन, राज्य से सर्वाधित व समाधान की अद्यतन जानकारी ोर दिया। आईपीएस मणिक लाल ाईएफएस अंजना एस तिर्की व डीन और पूर्व डेयरी निदेशक डॉ ने भी छात्र-छात्राओं को करियर योगी टिप्स दिए।

कार्यक्रम में चार सौ छात्र और छात्राओं ने भाग लिया

आईएस डॉ जटाशंकर चौधरी और विशेष सचिव (कृषि) प्रदीप हजारे ने छात्रों को सफलता के लिए करियर और जीवन में लक्ष्य निर्धारित करने, चुनौतियों का सामना करने और अति आत्मविश्वास ः लिए प्रेरित किया। बैट, जेट व ! की तैयारी के लिए स्थानीय कों के प्रतिनिधियों ने परामर्श दिए। छात्र-छात्राओं ने कार्यक्रम में भ

एग्रीयूनी फेस्ट में भाग लेने छात्रों का दल बेंगलुरू रवाना

फैकल्टी आफ कारेरट्री के विद्यार्थी भ्रमण पर पहुंचे देहरादून

23 BAU STUDENTS CRACK NATIONALIZED BANKS' EXAMS

कॉलेज ऑफ एग्रीकल्चरल इंजीनियरिंग में पर्यावरण सुरक्षा प्रतियोगिता आयोजित

छात्र जीवन में महाविद्यालय के माहौल एवं शिक्षकों के मार्गदर्शन का बड़ा योगदान

नाबार्ड में 11 छात्रों का होगा प्लेसमेंट

बीएयू में मेला

Students' Activities in Media

बीएयू के नये डीएसडब्ल्यू डॉ बीके अग्रवाल से खास बातचीत

Governor stresses on integrated farming for ensuring sustainable income to farmers

MI NEWS SERVICE

RANCHI: Governor Ramesh Bais on Thursday stressed on incorporating horticulture, animal husbandry, fisheries, poultry and beekeeping into the farming system of state farmers for ensuring continuous and sustainable income to them.

Addressing the 7th Convocation of Birsa Agricultural University (BAU), the Governor urged each of the degree recipients to visit five villages, stay there to understand the socio-economic conditions, problems and priorities of the farmers and suggest remedial measures.

Underlining the importance of natural and ... farming the Governor ...

रांची एग्रीस्पोर्ट्स में बीएयू को सिल्वर मेडल मिला

छात्र सतीश पाहन को लॉन्ग जम्प में सिल्वर मेडल

प्रतियोगिता | वेटनरी संकाय में वार्षिक खेल-कूद प्रतियोगिता 'आरकेट'-2023 का आयोजन

व्यक्तित्व का बौद्धिक विकास के लिए खेलकूद जरूरी

बीएयू के वानिकी संकाय ने विश्व वानिकी दिवस मनाया गया

बीएयू : 7वां दीक्षांत समारोह 2 फरवरी को

30 छात्रावासों के रख-रखाव व छात्र कल्याण कार्यक्रमों में सुधार की जरूरत

ज्वाइंट एप्टीट्यूड टेस्ट इन इंजीनियरिंग (गेट) 2023 परीक्षा में

बिरसा कृषि विवि के केवल वत्स सेकंड टॉपर

डीएवी गांधीनगर की अवनी प्रिया को पेंटिंग में प्रथम पुरस्कार

20 सदस्यीय बीएयू छात्रों का दल हिसार में आयोजित एग्रीस्पोर्ट्स में भाग लेगा

बीएयू के छात्रों ने ग्रामीण कार्यानुभव अध्ययन में लिया भाग

महोत्सव | बीएयू में सरहुल पूजा व महोत्सव धूम-धाम से मनाया गया

प्रकृति पर्व सरहुल का कृषि से अटूट संबंध

बीएयू में कृषि तकनीकी से रूबरू हुआ स्कूली छात्राओं का दल

बीएयू के कृषि संकाय में वार्षिक खेलकूद मीट 2023 का हुआ समापन

बीएयू का खेल में विशेष योगदान

21 वीं एग्रीस्पोर्ट्स में बीएयू को सिल्वर मैडल मिला

रांची : चौधरी चरण सिंह कृषि विश्वविद्यालय, हिसार (हरियाणा) में 20 से 24 फरवरी तक 21 वीं अखिल भारतीय अंतर कृषि विश्वविद्यालय खेलकूद एवं खेल मीट (एग्रीस्पोर्ट्स)-2023 का आयोजन किया जा रहा है. इस प्रतियोगिता का तीसरा दिन खेलकूद एवं खेल मीट के मामले में बिरसा कृषि विश्वविद्यालय (बीएयू), रांची के लिए शुभ दिन रहा. प्रतियोगिता के तीसरे दिन बुधवार को आयोजित लॉन्ग जम्प स्पर्धा में बीएयू, रांची के सतीश पाहन ने 6.35 मी. लंबी कूद लगाकर सिल्वर मैडल हासिल कर बीएयू को प्रतियोगिता का ...

बीएयू के कृषि संकाय में वार्षिक खेल-कूद मीट का आयोजन

छात्रों का पढ़ाई के साथ खेल में भी बढ़िया प्रदर्शन : डॉ ओंकार नाथ सिंह

बीएयू छात्रों का 27 सदस्यीय दल बंगलोर में आयोजित एग्रीयूनी फेस्ट में लेगा भाग

वेटनरी कॉलेज के सभी पूर्ववर्ती छात्र व छात्राएं हमारे ब्रांड एम्बेसडर : डॉ सुशील

व्यक्तित्व का बौद्धिक विकास के लिए खेल-कूद जरूरी : डॉ ओएन सिंह

बीएयू में कृषि तकनीकी से रूबरू हुआ स्कूली छात्राओं का दल

Students' Activities in Media

बीएयू के कृषि संकाय का वार्षिक खेल-कुद मीट मंगलवार से

गेट्सपुट एटीट्यूड टेस्ट इन इंजीनियरिंग (गेट) 2023 परीक्षा में बिरसा कृषि विवि के केवल वत्स सेकंड टॉपर

कृषि अभियंत्रण महाविद्यालय के दुसरे बैच के छः छात्रों को गेट परीक्षा में मिली सफलता

बीएयू के छात्रों ने पाइन वृक्ष के आर्थिक महत्व को जाना

- फॉरेस्ट्री के विद्यार्थी तैकालिक भ्रमण पर देहरादून पहुंचे
- विद्यार्थियों के दल ने भारतीय वन सर्वेक्षण संस्थान को भी देखा

मात्स्यिकी विज्ञान महाविद्यालय ने मनाया वार्षिक खेल कूद दिवस

किसानों संग कृषि स्नातक छात्र-छात्राएं बटन मशरूम उत्पादन प्रौद्योगिकी से जुड़े

एगी स्पोर्ट्स में बीएयू की रिले टीम सेफा में पहुंची

डीन एग्रीकल्चर ने सभी धर्मों का आदर व सम्मान करने की बात कही

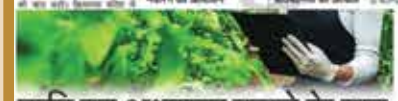
छात्रों ने क्रिशमस मिलन समारोह का आयोजन किया

सर्वों को क्षमा करना ही प्रभु यीशु की सबसे बड़ी शिक्षा : इग्नेटियस मिंज

बीएयू में विद्यार्थियों ने सीखी जीने की कला

बिरसा कृषि विश्वविद्यालय का 7वां दीक्षांत समारोह, 24 छात्र-छात्राओं को मिला गोल्ड मेडल

किसानों की नियमित आय के लिए समेकित कृषि को बढ़ावा दिया जाय: राज्यपाल



रोजगार मेला सह बीएयू-उद्योग मीट का समापन

कृषि का अध्ययन करने के बाद एक सफल उद्यमी कैसे बनें

कृषि- उद्यमी बनने के लिए जरूरी कदम

के 8 छात्र-छात्राओं का हुआ प्लेसमेंट, 6 लाख का मिला पैकेज

छः छात्रों को गेट परीक्षा में मिली सफलता

छात्रों ने मसूरी पर्वत श्रृखंलाओं में प्राकृतिक संसाधनों को देखा

दुर्लभ पौधों की बारीकी से जानकारी ली

बीएयू में हार्टफुलनेश संस्था के स्टार्ट अप कार्यक्रम का समापन

किसानों संग कृषि स्नातक छात्र-छात्राएं बटन मशरूम उत्पादन प्रौद्योगिकी से जुड़े

बालक में सतीश व बालिका वर्ग की प्रिया ओवरआल चैंपियन घोषित

हॉर्टिकल्चर कॉलेज परिसर में लैंड स्केप विकास की शुरूआत

नये परिसर में छात्रों ने जुलाब का किया पौधारोपण

बीएयू में सरहुल पूजा व महोत्सव धूम-धाम से मनाया गया

कृषि विश्वविद्यालय के एलुमनाई का बीएयू में रांची मिलन समारोह का आयोजन

कृषि संकाय के छात्रों से अनुभव साझा किया

फिशरीज साइंस कॉलेज के छात्रों को राष्ट्रीय प्रतियोगिता में द्वितीय स्थान

प्रकृति पर्व सरहुल का कृषि से अटूट संबंध : समरीलाल

Students' Activities in Media

बिरसा कृषि विश्वविद्यालय में तीन दिवसीय स्टार्ट अप कार्यक्रम का आयोजन

विद्यार्थियों ने सीखी जीवन जीने की कला

बीएयू के सात विद्यार्थियों का प्रदान संस्था में चयन

आरके मिशन शिक्षण एवं अनुसंधान संस्थान के कृषि स्नातक छात्रों के दल ने बीएयू का शैक्षणिक परिभ्रमण किया

बीएयू में सरहुल पूजा व महोत्सव धूम-धाम से मनाया गया

प्रकृति पर्व सरहुल का कृषि से अटूट संबंध : समरीलाल

हॉर्टिकल्चर कॉलेज के नये परिसर में छात्रों ने गुलाब के पौधे लगाये

बिरसा कृषि विविद्यालय के 23 छात्र छात्राओं का राष्ट्रीयकृत बैंकों में चयन

फिशरी साइंस कॉलेज के छात्रों ने जीता पुरस्कार

बीएयू के आठ विद्यार्थियों का कैंपस प्लेसमेंट

सफलता

एप्टीट्यूड टेस्ट इन कृषि विवि के दूसरे बैच के छह छात्रों को गेट परीक्षा में मिली सफलता

अखिल भारतीय स्तर की रैंकिंग में केवल वत्स सेकंड टॉपर रहे

आईसीएआर की चार सदस्यीय दल ने चना फसल शोध कार्यक्रमों की समीक्षा की

वेटनरी कॉलेज के पूर्ववर्ती विद्यार्थी जुटे

वेटनरी कॉलेज में 29 को होगा डॉग शो

हिसार में आयोजित एग्रीयूनी स्पोर्ट्स में बीएयू की पुरुष टीम सेमीफाइनल में पहुंची

कृषि छात्र अभिनव कृषि तकनिकी से जुड़े : डॉ एके सरकार

वेटनरी संकाय में वार्षिक खेल-कूद प्रतियोगिता आयोट -2023 का आयोजन

व्यक्तित्व का बौद्धिक विकास के लिए खेल-कूद जरुरी : डॉ ओएन सिंह

बिरसा कृषि विश्वविद्यालय का 7वां दीक्षांत समारोह आयोजित

24 विद्यार्थियों को मिला गोल्ड मेडल

Shivam Kumar Pandey creates History in National Level PG Entrance Exam - 2022

Shivam Kumar Pandey

In second consecutive year, the graduate students of BAU, Ranchi excelled in the AIEEA PG Entrance Competitive Examination - 2022 conducted by the Indian Council of Agricultural Research (ICAR), New Delhi. More than 100 students of BAU got success in this exam. Last year, in AIEEA-2021 exam. a total of 83 BAU students had earned success and enrolled in PG courses in various subjects of prestigious agricultural universities of the country. Shivam Kumar Pandey, a student of Phulo Jhanho Murmu Dairy Technology College, Hansdiha (Dumka), made history of the college and brought laurels to the university by securing first rank in Dairy Technology at All India level in AIEEA - 2022 examination.

Keval Vats of BAU became Second Topper in GATE-2023

In the Graduate Aptitude Test in Engineering (GATE) - 2023 declared by the Indian Institute of Technology (IIT), Kanpur, Kewal Vats, a student of the College of Agricultural Engineering, Birsa Agricultural University, Ranchi has been secured the second position in the all India level ranking. 5 students of the College of Agricultural Engineering were also qualify the exam. Ms. Rupali Gupta got 27th, Mr. Gaurav Kumar Agarwal got 68th, Ms. Pooja Kumari got 78th, Mr. Hrithik Raj got 182nd and Mr. Kumar Aditya Raj got 388th all India level ranking.

BAU student Satish Pahan got Silver Medal in 21st Agrisports

Satish Pahan

Mr. Satish Pahan, student of IIIrd Semester, Faculty of Agriculture, Birsa Agricultural University (BAU) Won silver medal in long jump (6.35 m) at the 21st All India Inter Agricultural University Sports Meet (AgriSports)-2023 held from 20 to 24 February at Chaudhary Charan Singh Agricultural University, Hisar (Haryana). Under the guidance of Team Manager Dr. B.K. Agarwal, a team of 20 students of BAU also participated in various sports events in the competition.

BAU Students' Participation in Agri-Uni Sports, Agri-Unifest - 2023 & All India Veterinary Colleges' Trournament

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