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Home

UAS-B is one of the leading Agriculture focused universities in India. It has domain expertise in diverse area of Agriculture like crop improvement, conservation Agriculture, crop management, crop protection value addition and Agriculture implements. Several scientific leads have been made by the institution that has potential to be translated to products.

The Agri-innovation Centre at UAS, Bangalore will nurture and strengthen the innovations in Agriculture and entrepreneurship. The aim is to foster cutting edge innovations in Agri. based sector leading to job creation and product development resulting in the economic benefits to the farming sector.

The incubator centres are becoming instrumental in translating the potential scientific discoveries into products for economic development. Unlike IT and Pharma area, the Agri. entrepreneurship has just begun its impact in contribution to economic development.

Even though many Agri. entrepreneurs started their ventures, there was no visible impact so far. The major reason being, that many of these start-ups have not focused on technologies that were driven by the leads obtained by the scientific discoveries. The consensus is that the startups that are incubated at academic institutions did well signifying the need for hand holding of the start-up entrepreneurs by academia. From this context, strengthening incubation center at academic institute like our university has relevance

Contact: Co-ordinator, Email: harinikumarkm@gmail.com, 080-23330277

Co-coordinator, Email: veenaanil@ymail.com

President's Message

In India agriculture is more a 'way of life' than a 'mode of life'. More than 50 per cent population of the country are engaged in Agriculture, thus making it as the single largest source of employment. Agricultural start-ups in India are still at a nascent stage, with > 300 agripreneurs trying to solve multiple emerging problems in the Indian agribusiness ecosystem. Globally, agricultural technology start-ups are prevalent in agriculture biotechnology, online farm-to-consumer, farm management software, sensor based farming and IoT, robotics, mechanization equipments, food safety, phyto remediation's, biodegradable materials (plastics), bio-energy and traceability, etc. Enormous amount of innovative solutions are required to overcome the challenges in Indian agriculture and to make it globally competitive and to sustain profitably. New inventions are required to reduce the drudgery of farm women, make operations more effective, efficient crop management, post-harvest management, value addition and chain management. The machinery, equipments and technologies must be used by small & marginal farmers so that they are able to double the production and their income. Several opportunities are there for developing innovative solutions using IoT for farm management, dissemination of market information and marketing. Taking cognizance of all these avenues. UAS (B) established the Agri. Technology Incubation Society to facilitate the interested clientele with innovative ideas, to interact with experts and convert their ideas into products, commercialize them by initiating start-ups and contribute to agriculture development and welfare of farming community. I request all the aspirants to make use of the services of AIC to innovate, promote agricultural development and prosper.

Sd

S. Rajendra Prasad

Vice Chancellor, UAS, GKVK,

Bangalore

Dr. Harinikumar, K. M is the co-ordinator of Agri. Innovation Center. Currently nine entrepreneurs with innovative ideas in Agriculture and allied sector have been selected under Agri. Startup programme and 3 incubatees are incubating in UAS under UAS-B – C-CAMP collaborative Agri. Innovation Center programme and are incubating in the departments of UAS-B AGRI. INNOVATION CENTER has been established in the UAS, GKVK, Bangalore with the moto of translating the innovative ideas of Start-ups into economically and commercially viable products. This centre paves the way for entrepreneurs to implement their innovative ideas in developing a successful product/ technology. This model of technology/Product development in Agriculture sector not only encourages entrepreneurial skills and creates new jobs but also has several other trickle-down effects that contribute to the overall growth of national economy. UAS-B has domain expertise in diverse area of Agriculture like crop improvement, conservation Agriculture, crop management, crop protection, value addition and Agriculture implements. Several scientific leads have been made by institution which has a great potential to translate them into products and entrepreneurs can outsource the Agri-based technologies with commercial potential. This Programme focus on developing options for the young entrepreneurs, farmers, academicians and Agriculture Scientists with innovative ideas to absorb the emerging technologies and initiate translational programmes to develop products to improve the economic returns of Agriculture sector.

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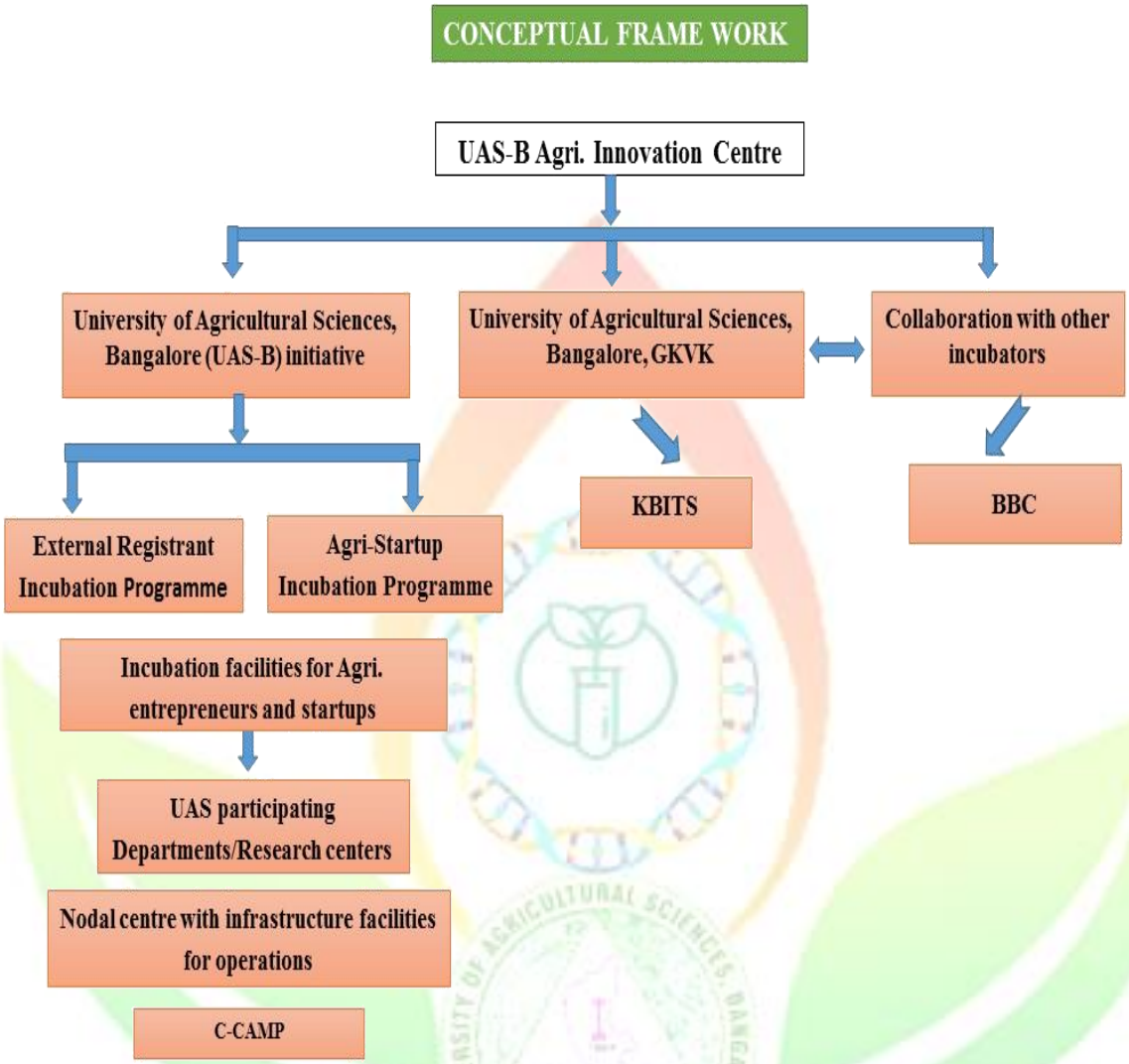
Newsletter

In Progress

Agri. Technology Incubation Society – Executive Committee

Sl. No.	Name	Designation in the Society	Age	Signature
1.	Vice-Chancellor, UAS, Bangalore	**President**		
2.	Director of Research, UAS, Bangalore	**Vice-President**		
3.	Registrar, UAS, Bangalore	**Executive Member**		
4.	Director of Extension, UAS, Bangalore	**Executive Member**		
5.	Dean (Agri.),UAS, Bangalore	**Executive Member**		
6.	Dean (PGS), UAS, Bangalore	**Executive Member**		
7.	Professor & Head, Dept. of Agricultural Marketing Co-operation and Business Management, UAS-B, CEO of TBI	**Executive Member**		
8.	Professor, UAS-B	**Executive Member**		
9.	Professor & Head, Dept. of Entomology, UAS-B	**Executive Member**		
10.	Special Officer and Professor & Head, Dept. of Agricultural Engineering, UAS-B	**Executive Member**		
11.	Scheme Head & Co-ordinator, ACRIP, UAS-B	**Executive Member**		
12.	Professor & Head, Dept. of Horticulture, UAS-B Comptroller, UAS (B), GKVK, COA,GKVK	**Executive Member**		
13.	Comptroller, UAS (B), GKVK,	**Treasurer**		
14.	Coordinator, AIC, UAS, Bangalore	**Secretary**		
15.	Co-Coordinator, AIC, UAS-B	**Joint Secretary**		

Ventures



Services/ Facilities

- Incubation of Start-up companies and also Promoting Student entrepreneurship
- Licensing of University Technologies
- Financial support from Banks/ NABARD/ MSME/ Venture capitalists.
- Market linkages/ Intra-Incubatee linkages/ Interface Meets
- Patent Services for Innovative process and products
- Establishment of innovation cluster in selected areas of agricultural economy
- Sales promotional activities (TV channels, Newspapers, Magazines, Participation in National events and Agri-Expos)
- Access to Seminars/ Conferences/ Workshops/ Interface meetings
- In-house space for start-ups
- Access to Food Packaging Laboratory
- Post harvest facilities on payment basis.
- Access to Central Instrumentation facility
- Mentoring by Experts
- Training on Entrepreneurial skills
- Tissue culture, Green house and Aeroponics facilities

Technology Commercialization

Technologies from UASB

1.Value-added Products from Millets, Jackfruit and Maize

2.Bio-prospecting Research has identified richer sources of Shikimic Acid and Camptothecin

3.New crop Hybrids in Sunflower, Maize and Rice

4.Agricultural Equipment include Machines and Gadgets

I.Popular Crop Based Technologies

- **Sunflower Hybrids**

KBSH-1, KBSH-41, KBSH-42, KBSH-44, KBSH-53, KBSH-78 and KBSH-79

- **Rice Hybrid**

KRH-2 and KRH-4

- **Maize Hybrids**

NAH-1137, NAH-2049, NAC-6002, NAC-6004 &MAH-14-5

II. Food Based Technologies

- **Jackfruit**

Ready-to-Serve Beverage, Candy, Bulb Powder biscuit, Shrikhand, Bulb Jam, Rind Jam, Muffin

- **Finger Millet (Ragi)**

Malt, Hurihittu, Papad, Vermicelli, Pasta, Vermicelli with hypoglycaemic foods

- **Minor Millets**

Doughnut, Muruk, Rusk, Vermicelli, Ready-to-Eat Noodles, Soup Mix,

- **Maize**

Cheese balls, Maize Curls

- **Other Products**

Kokam Therapeutic Beverage, Amaranth Chikki, Pop Energy Mix, Composite Flour Mix, Fenufiber Composite Flour, Niger Chikki, Amla& Ash Gourd Juice & Soup Mix, Bovine Colostrum Milk Burfi and Nutri dense Chocolates andTomato Soup Mix.

TECHNOLOGIES in the FOOD SECTOR

Patent/ Patent Process and Commercialization:

Patents:

1. Process for Manufacturing Millet Bread (Loaf Type) from Millets namely Jowar, Kodo, Proso, Pearl, Little, Foxtail
2. Process for Manufacturing Tapioca Flour Bread (Loaf Type)
3. Process for Manufacturing Banana Flour Bread (Loaf Type)
4. Process for Manufacturing Whole Ragi/Finger Millet Bread (Loaf Type)
5. Process for Manufacturing Soy Gulab Jamoon Mix
6. Process for Manufacturing Instant Sambar Mix
7. Process for the Production of Honey Powder with Natural Profiles
8. A Process for Preparation of Wheat based chocolate Bar- Patent Granted
9. Process for Manufacture of Tomato Bread (Loaf Type)- Patent Grant Approved

Technologies Commercialized

1. Process for the Manufacture of Instant Ragi (Finger Millet) Mudde Mix
2. Nata-de-coco Production from Microbial Fermentation of Coconut Water through Enrichment Techniques
3. Ready to Eat Honey Paan Beeda

Machine Based Technologies

1. Animal drawn Seed-cum-Fertilizer Drill for Finger Millet
2. Animal drawn Groundnut Digger
3. Animal drawn Multi Furrow Opener
4. Bicycle Weeder
5. Mango Harvester
6. Sapota Harvester
7. Hand Operated Maize Sheller
8. 3-in-1 Mini Groundnut Decorticator-cum-Sunflower Thresher & Maize Sheller
9. 2-in1 Maize Sheller-cum-Sunflower Thresher*
10. Pedal Operated Coconut Dehusker

11. Manual Arecanut Dehusker
12. Portable Winnower
13. White Pepper making Machine
14. Tamarind Dehuller-cum-Deseeder
15. Pongamia Decorticator
16. Solar cum biomass energy dryer

Plant Varieties/hybrids protected

Crop	Variety/hybrid Name	Registration No. with PPVFRA	Application
Maize	NAH-2049	108 of 2012	F1 Maize Hybrid with Yield potential of 8.0-9.0 tonnes/ha, Maturing in 120-130 Days and Resistant to Sorghum downy mildew, Turcicum leaf blight and Polysora rust diseases
Maize	NAC6002	10 of 2011	Composite Maize with Yield potential of 4.0-4.5 tonnes/ha, Maturing in 95-100 Days and Tolerant to Turcicum Leaf Blight, Sorghum Downey Mildew, Ear Worms and Flea Beetle
Maize	NAC6004	9 of 2011	Composite Maize with Yield potential of 5.5-6.0 tonnes/ha, Maturing in 120-130 Days and Tolerant to Turcicum Leaf Blight, Sorghum Downey Mildew
Pigeon Pea	BRG-1	28 of 2012	Seed Yield potential 1.4-1.6 tonnes/ ha Maturing in 160-180 Days Moderately resistant to SMD.
Sunflower	KBSH-41	REG/ 2012/113	F1 Hybrid with Yield potential of 1.72-2.50 tonnes/ha under irrigation and 0.9-1.10 t/ha under rainfed, oil content 0f40.0% Maturing in 90-92 Days
Sunflower	KBSH-42	REG/ 2012/139	F1 Hybrid with Yield potential of 1.62-2.35 tonnes/ha under irrigation and 0.8-1.10 t/ha under rainfed, oil content 0f 39.0% Maturing in 90-95 Days
Sunflower	KBSH-44	REG/ 2012/138	F1 Hybrid with Yield potential of 1.72-2.50 tonnes/ha

			under irrigation and 0.9-1.10 t/ha under rainfed, oil content 0f40.0% Maturing in 90-92 Days
Sunflower	KBSH-53	REG/2012/137	F1 Hybrid with Yield potential of 1.7-2.7 tonnes/ha under irrigation and 0.9-1.10 t/ha under rainfed, oil content 0f 42% Maturing in 95-100 Days. Tolerant Powdery Mildew disease.

Scientific Research Leading to Patents

Instant Honey PAAN BEEDA with long shelf life. Microbial Safety test of sample packed in self sealed poly covers stored at room temperature for 4-months is assured safe. Taste scores acceptable equally for both fresh & 4-month stored sample.

The product process technique & product is filed for GOI Patent through NRDC-GOI" With technical know-how rights to NAIP and UAS-Bangalore .

Scientist Team: Dr.H.B.Shivaleela; Ms.RaniArvind. Dr.N.S.Bhat; Ms. SavithaHulmani.

Tomato Bread (loaf Type) Process Technology

Advantages over the existing: Tomato as base In Bread is a novel. Skill, Technology & Bakery industry gets Regionalized due to adoption of regional Farmers Horticultural crop invariably loosing market Value during glut gets boost directly without depending on another primary processing industry. Bakery bread will be out of junk food category. Consumer point of view it is good for health & contributes dietary resistant starch/fiber. Breads can be globalized for the benefit Individuals with NCDs due to natural enrichment of active dietary fiber, lycopene. Transform a horticulture produce into a functional staple food with longer shelf life Bread (loaf Type) Process Technology.

Patent No	Year of patent	Title	Application
229291 (Independent Patent)	2009	A wheat based chocolate bar for sustained energy release.	Sustained energy release.
224630 (Joint Patent)	2008 (21-Oct-2008)	Improved Rabies vaccine production in plants	Rabies vaccine produced in muskmelon has shown antibody productions in animals. Hence this oral vaccine can be used to control rabies in animals and also as oral vaccine for humans.
IPR/4.8.16/09074. /2009;6.1.2010	Process for the manufacture of millet bread (leaf type) from millets namely jowar/jola (sorghum), kodo/ harka (paspalumscrobiculatum), proso/baragu (panicummiliacum),	Utilization of millets in Bread & Bakery Industry.	-

	pearl/bajra/sajje (pennisetumglaucum) , little/same (panicumsumatrense), foxtail/ navane (setariaitalica).		

Crop Production

- Agro techniques for hydroponic fodder production
- Amla based Agri-horti system involving cereals and pulses
- Custard apple based Agri-horti intercropping system
- Precision nutrient management in Maize
- Weed management in Field bean
- Weed management in cowpea
- Sub surface drip irrigation in Mulberry
- Aeroponics, Vertical farming

Plant Protection:

- Chemical control of red spider mite on French bean
- Management of giant African snail, Achatina fulica Bowd
- Management of peanut bud necrosis virus
- Integrated Management of Papaya Ring Spot Virus (PRSV) disease in Papaya
- Eco-friendly management of foot rot of Finger millet
- Management of sorghum downy mildew in Maize
- Management of sheath blight and neck blast in paddy
- Use of Compost Tea for control of Late Blight and for higher yield in Potato

Membership

* Members	One time registration fee (Rs)	One time Membership fee (Rs)	Annual Membership fee (Rs)
Farmers/Individuals: Form A	500	10000	2500
Proprietary Firm/ farmers Association: Form B	1000	30,000	7500
Private Public: Form C	1500	50000	12500
MNCs: Form D	2000	100000	25000

Gallery

Tissue Culture Facility

Plant Phenomics Platform

Green House Facility

Biofertilizer Unit

Poly House Facility

Pathology Lab

Organic farming unit

National Seed Project (NSP)

Molecular Lab

Apiculture and Sericulture

Development of Value added products, Agricultural implements and varieties

RKVY

In Progress

NABARD

In Progress

KBITS – IT & BT, Government of Karnataka

In Progress