Annual Action Plan for the year 2023

Krishi Vigyan Kendra, (Baksa)
(Assam Agricultural University)
(Estd.- 2014)

District Features:

- Agro climatic zone (s)   : Lower Brahmaputra Valley Zone
- No. of Villages   : 690
- No. of Holdings   : 89,531
- Gross cropped area (ha)   : 1,64,862 hectares
- Area under irrigation (%)   : 22.82%
- Sources of irrigation   : Under Surface irrigation (Canal, LLP,STW,DTW, Solar Pump, River, minor irrigation tank, lift irrigation/diversion)
- Under ground water irrigation   : Deep tube well, shallow tube well
- Major Soil types   : Sandy loam,
- Major crops in Rabi   : Boro Paddy, Ahu Paddy, Early Ahu, Mustard, Potato, Lentil, Summer Black gram, Summer Green gram, Linseed etc.
- Major crops in Kharif   : Sali Paddy, Maize, Black gram, Green gram, Sesamum etc.
- Major Livestock details   : Cattle, Goat, Pig, Poultry

Staff position:

Sl. No.	Name	Designation	Discipline	Vacant
1	Dr. Utpal Jyoti Sarma	Head	Soil Science	
2	Mr. Sunil Kr. Bhattacharya	SMS	Pl. Protection	
3	Dr. Debajit Deka	SMS	Animal Science	
4	Mr. Dinku Bora	SMS	Agronomy	
5	Mr. Kanku Deka	SMS	Soil Science	
6	Mr. Rocktim Baruah	SMS	Horticulture	
7	-	**SMS**	-	1
8	Mr. Dipen Kr. Borah	Office Supdt. Cum Accountant	Office Suppt. Cum Acctt.	
9	-	**Steno cum Computer Operator**	-	1
10	Mrs. Smritirekha Sarma	Prog. Asstt. (Comp.)	Computer Science	
11	Ms. Jyotismita Borah	Prog. Asstt. (Agri.)	Agril. Economics	
12	Mr. Niranjan Deka	Driver cum Mechanic	-	
13	-	**Driver cum Mechanic**	-	1
14	Ms. Gariyasi Tamuly	SMS (under DAMU)	Agrometeorology	
15	Mr. Latumoni Gogoi	Agromet Observer (under DAMU)	-	
16	-	**Supporting Staff**	-	2

ON FARM TESTING (DISCIPLINE–WISE SUMMARY) for the year 2023:

Discipline	Crop/enterprise	No. of Technology/ Social Concept/ methodology to be		No. of trials proposed	
		Assessed	Refined	Assessment	Refinement
Agronomy	Kharif Paddy	1		3	

	Finger Millet	1		3	
Horticulture	Chilli	1		3	
	Sweet Potato	1		3	
	Cauliflower	1		3	
Soil Science	Rice	1		3	
	Toria	1		3	
	Potato	1		3	
Plant Protection	Chilli	1		3	
	Tomato	1		3	
Animal science	Pig	1		3	
	Poultry	1		2	
Total		**12**		**35**	

ON FARM TESTING 1 (AGRONOMY) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Kharif Paddy	The quantity of beneficial microbes in the soil are decreasing gradually Thereby soil health is deteriorating and nutrient uptake capacity of plant also hinder.	**Assessment of Nano Urea formulation on growth and yield attributes of Kharif Paddy var. *Ranjit Sub I* Treatment: T1-** $N_{50}PK$ + 2 Foliar spray of Nano Urea @ 0.2% at 25 and 50 DAT **T2-** $N_{50}PK$ + 2 Foliar spray of Nano Urea @ 0.4% at 25 and 50 DAT **T3-** RDF (60:20:40, $N:P_2O_5:K_2O$)		ICAR and IFFCO, 2018	3		Observations: 1. Date of sowing, transplanting and harvesting 2. Grain yield (q/ha) and yield attributing characters 3. Nutrient status of soil (before and after) 4. Pest and diseases (if any) 5. Economics

ON FARM TESTING 2 (AGRONOMY) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	

| Finger Millet | Less no of HYV of Finger millet and Lower productivity of existing varieties | Assessment of Finger millet varieties in Baksa district. T1- VL Mandua 352 T2- Gossaigaon Marua Dhan 1 T3- Gossaigaon Local(Open type) | | AAU-ZRS, Gossaigaon and VPKAS, Almora, 2018 | 3 | | Observations: 1. Date of sowing ,transplanting and harvesting 2. Grain yield (q/ha) and yield attributing characters 3. Nutrient status of soil (before and after) 4. Pest and diseases (if any) 5. Economics |

ON FARM TESTING 1 (HORTICULTURE) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Chilli	High Incidence of chilli leaf curl disease which hinders production. The varieties (Arka Tejasvi, Arka Sanvi, Arka Gagan) released by IIHR are resistant to chilli leaf curl disease	Varietal evaluation of chilli var. Arka Tejasvi, Arka Sanvi, Arka Gagan for chilli leaf curl disease resistance in Baksa district. Treatment: T1- Arka Tejasvi T2- Arka Sanvi T3- Arka Gagan T4- KSP1469 (check)		IIHR, 2021	3		1. Plant Height (cm) 2. Days to 50% flowering 3. Days to 1st harvest 4. No of fruits /plant 5. Average fruit weight(g) 6. Average fruit length(cm) 7. Yield(q/ha) 8. Disease incidence(%)

ON FARM TESTING 2 (HORTICULTURE) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Sweet Potato	Low production and low nutritional quality in existing	Performance of Sweet potato var. Bhu Sona, Bhu Krishna and		CTCRI, 2017	3		1. No. of branches per plant 2. Vine length(cm) 3. No of roots per

varieties. The bio-fortified varieties- Bhu Sona(rich in Beta-carotene), Bhu Krishna(rich in Anthocyanin) will help in meeting the nutrient demand	Dergaon Red in Baksa district Treatment: T1- Bhu Sona T2- Bhu Krishna T3- Dergaon Red (check)					plant. 5. No. of days to root harvest 4. Root Yield /plant(kg). 5. Yield(q/ha) 6. B.C ratio.

ON FARM TESTING 3 (HORTICULTURE) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Cauliflower	Low nutrient quality in existing varieties. These varieties – Carotena (Rich in Vit A) and Valentena (Rich in Anthocyanin) will supplement nutrient to the consumers.	Performance of coloured Cauliflower varieties in Baksa district **Treatment:** T1- Carotena T2- Valentena T3- Amazing (check)		Syngenta, 2019	3		1. Days to maturity 2. Plant spread (cm) 3. Weight of untrimmed curd(kg) 4. Curd diameter (cm) 5. Yield/ha 6. B.C ratio

ON FARM TESTING 1 (PLANT PROTECTION) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Chilli	Yield loss by white fly through sucking and viral disease transmission.	Management practice of White fly (leaf curl virus vector) in Chilli. Technology: T1 : i) Spraying of Imidacloprid 200 SL @ 0.3 ml/l one week after seed germination ii) Dipping of seedlings in Imidacloprid 200 SL @ 0.3 ml/l before transplanting iii) Spraying of Imidacloprid 200SL @ 0.4 ml/l 15 days after transplanting iv) Roughing infected plants T2: Farmer Practice: Application of contact insecticide		ICAR-IIHR, Bengaluru, 2018	3	-	- Date of sowing - Date of transplanting - Date of appearance of first symptom of leaf curl observed - No. of plant affected at weekly interval after first infection - Per cent incidence of leaf curl - Crop yield (q/ha) - B:C ratio - Farmers feed back

ON FARM TESTING 2 (PLANT PROTECTION) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Tomato	Multiple disease like leaf curl, late blight and bacterial wilt	Assessment of Multiple disease resistant Tomato hybrid, Arka Abhed, Arka Rakshak with Trishul		IIHR, 2018	3		1. Disease intensity (%) 2.Fruit/plant 3.Fruit wt(KG) 4.Yield/ha 5.B.C ratio

ON FARM TESTING 1 (SOIL SCIENCE) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Rice	Low availability of labile Potash	Exploitation of Potash solubilising bacteria in reduction of Potassic fertilizer in Sali rice, Var-Numoli Treatment: T1- NPK @ 60:20:20 (kg/ha) + microbial consortia of KSB @3.5 kg/ha T2- Farmers practice (recommended dose of NPK @ 60:20:40)		Dept. Soil Science, AAU , under pipeline	5		1. Soil data before and after harvesting 2. Grain and Stover yield data(q/ha) 3. B:C Ratio

ON FARM TESTING 2 (SOIL SCIENCE) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Potato	Decrease in productivity due to soil acidity and poor use of soil amendments	Effect of furrow application of lime on growth and yield of potato in acid soil. Treatment: T1- Lime @ 2-4 q/ha (based on Soil pH) + 50% of RDF T2- Farmers practice (RDF)		ICAR, NEH Borapani, under pipeline	05		1. Soil data before and after harvesting 2. Yield (q/ha) 3. B:C Ratio

ON FARM TESTING 3 (SOIL SCIENCE) for the year 2023:

Crop	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Toria	Micronutrient deficiency	Application of sulphur and boron in Toria, Var-TS-38 Treatment: T1- Apply Boron as basal @1.5 kg/ha and S @ 20 kg/ha + NPK @ 60:20:40 T2- Farmers practice (recommended dose of NPK @ 60:20:40)		AICRP-MSPE, Jorhat, AAU, 2021	5		1. Soil data before and after harvesting 2. Grain and Stover yield data(q/ha) 3. B:C Ratio

ON FARM TESTING 1 (ANIMAL SCIENCE) for the year 2023:

Enterprise	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Pig	Performance evaluation	Introduction of Newly released HDK75 pig breed under agro climatic condition of Baksa District T1 : HDK75 Pig T2 : Ghungroo Pig		CVSc, AAU, Khanapara Guwahati, 2016	3		1. Periodic body weight (Monthly interval) 2. Age at the time of puberty. 3. Litter size and litter weight at the time of birth. 4. Litter size and litter weight at the time of weaning.

ON FARM TESTING 2 (ANIMAL SCIENCE) for the year 2023:

Enterprise	Problem with severity	Technology/Social concept to be		Source of technology and release year	No. of trials proposed		Parameters of assessment/refinement
		Assessed	Refined		Assessed	Refined	
Poultry	Pale colour of yolk in	Feeding of Marigold as feed additive.		AAU, 2021	2		1. Body weight at different age. 2. Age at sexual

intensive system.	T1 : Feed + Marigold (3%) T1 : Feed + Marigold (6%) T2 : Normal feed					maturity 3. Egg production, egg weight and Yolk Colour. 4. Diseases incidence.

FLDs (Discipline-Wise Summary) for the year 2023:

Discipline	Crop/ enterprise	No. of Technology/ Social Concept	No. of demos proposed	Area (ha) to be covered/ no. of activity	No. of participants/ famers to be covered
Agronomy	Rice-Toria	1	20	5.0	20
	Maize	1	10	2.0	10
Horticulture	Arecanut based Multi-cropping System	1	5	0.33	5
	Cabbage	1	3	0.33	3
Soil Science	Vermicompost	1	20	20unit	20
	Toria	1	5	1.0	5
Plant Protection	Honey Bee	1	10	10 box with colony	10
	Mushroom	1	5	100 Kg spawn	5
Animal Science	Tapioca	1	2	0.86 ha	2
	Fodder crop	1	2	0.86 ha	2
Total		**15**			**116**

FRONT LINE DEMOSTRATION 1 (AGRONOMY) for the year 2023:

Crop/Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No. of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Rice- Toria	Popularization of medium duration Rice(Numoli)-Toria(TS-38) cropping sequence		AAU, 2018	20	5	20	1. Date of sowing and harvesting Rice and Toria. 2. Yield (q/ha) and yield attributes Rice and Toria. 3. Economics

FRONT LINE DEMOSTRATION 2 (AGRONOMY) for the year 2023:

Crop/Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No. of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Maize	Popularization of high quality protein Maize var. DKC 9081		AAU-ZRS, Gossaigaon, 2018	10	2.0	10	1. Date of sowing & harvesting 2. Grain yield (q/ha) and yield attributing characters 3. Pest and diseases (if any) 4. Economics

FRONT LINE DEMOSTRATION 1 (HORTICULTURE) for the year 2023:

Crop/Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No. of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Arecanut	Popularization of Arecanut based Multi-cropping system. (Black pepper, Turmeric, Pineapple)		AAU, 2012	3	0.33	3	1. Plant growth characters, Yield and Yield attributing characters, B:C ratio

FRONT LINE DEMOSTRATION 2 (HORTICULTURE) for the year 2023:

Crop/Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Cabbage	Popularization of Nutrient management of Ratoon Cabbage. **Treatment:** 100% RFD in Main crop and		AAU, 2021	3	0.33	3	1. Plant growth characters, Yield and Yield attributing characters, B:C ratio

	50% RFD in Ratoon crop						

FRONT LINE DEMOSTRATION 1 (SOIL SCIENCE) for the year 2023:

Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/ refinement
	Assessed	Refined					
Vermicompost	Low cost Vermicompost production technology Technology: By using earth worm Eiseania fetida		AAU, 2010	20	20unit	20	Production(t/unit)

FRONT LINE DEMOSTRATION 2 (SOIL SCIENCE) for the year 2023:

Crop	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Toria	INM in Toria.Var-TS-36/TS-67 Technology: Application of fertilizer @ 45: 22.5:30kg(N : P2O5 : K2O) /ha along with Azotobecter and PSB each @ 40gm/Kg Seed.		Shilongoni	05	1.0	5	i. Yield(q/ha) ii. Gross Cost (Rs./ha) iii. Gross Return (Rs./ha) iv. Net return (Rs/ha) v. B:C Ratio (GR/GC) vi. Soil test report

FRONT LINE DEMOSTRATION 1 (PLANT PROTECTION) for the year 2023:

Crop/ Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Honey Bee	Rearing of Indian Honey bee with		AAU, 2002	10	10 box with colony	10	1. Yield of Toria and honey 2. B:C Ratio

Rapeseed							

FRONT LINE DEMOSTRATION 1 (PLANT PROTECTION) for the year 2023:

Crop/ Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Mushroom	Cultivation of Oyster mushroom		AAU, 2006	5	100 Kg spawn	5	1. Yield /bed 2. B:C Ratio

FRONT LINE DEMOSTRATION 1 (ANIMAL SCIENCE) for the year 2023:

Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Pig	Feeding of Tapioca.		AAU, 2018	2	086 ha	2	1. Periodic body weight (Monthly interval) 2. Age at the time of puberty. 3. Litter size and litter weight at the time of birth. 4. Litter size and litter weight at the time of weaning.

FRONT LINE DEMOSTRATION 2 (ANIMAL SCIENCE) for the year 2023:

Crop/Enterprise	Technology/Social concept to be		Source of technology and release year	No. of demo	Area (ha)/activity to be covered	No.of Farmers to be covered	Parameters of assessment/refinement
	Assessed	Refined					
Fodder	Popularisation ofv hybrid Napier var. CO4		AAU, 2019	2	0.86 ha	2	1. Yield (qt/ha)

Discipline(Agril Economics):

- **Research Study**

Sl No	Title	Sample Size	Parameters To be studied
1	Impact assessment on Mushroom cultivation for entrepreneurship development	60	i. Extent of technology adoption ii. Changes in yield and income ii. Impact on knowledge gain, enterprise development, income and horizontal spread
2	Participatory rural appraisal	3 villages	-

Total Training Programmes propose during 2023:

DISCIPLINE	No. of course	No. of Trainings	No. of Farmers
Agronomy	12	12	300
Soil Science	12	12	300
Horticulture	12	12	300
Plant Protection	12	12	300
Animal Science	12	12	300
Fishery Science	1	1	25
Total	61	61	1525

Extension Activities:

Extension Activity	No. Proposed	Beneficiaries (No.)		Total
		Farmers	Rural Youth	
Diagnostic visit	50	300	200	500
Advisory services/ telephone talk	1200	-	-	3000
Celebration of Important days	15	800	700	1500
Exhibition	4	-	-	-
Exposure visit	2	25	25	50
Extension literature (Leaflet/ folders/ Pamphlets)	12	1600	800	2400
Extension / technical bulletin	2	450	200	650
News letter	1	380	120	500
News paper coverage	20	-	-	-
Success stories/ Case studies	5	2	3	5
Research publications	8	-	-	-
Farmers' Scientist Interaction	3	80	40	120
Farmers' visit to KVKs	-	-	-	650

Field day	12	300	180	480
Radio Talk	6	-	-	-

Extension Activities:

Extension Activity	No. Proposed	Beneficiaries (No.)		Total
		Farmers	Rural Youth	
TV talk	2	-	-	-
Kishan Goshthi	0	-	-	-
Group Meeting	30	150	170	320
Kishan Mela	3	-	-	-
Animal Health Camps	2	180	70	250
Method demonstration	8	160	60	220
Scientists' visit to farmers' field	75	-	-	-
Workshop/ Seminar	6	-	-	-
Awareness camp 1. Mobile Agro-Advisory (Messages/ Beneficiaries) 2. Crop Insurance 3. Kissan Credit Card	8 2 2			