Crop improvement

Sl.No	Problem Identified	Specific farming situation for which technology is developed	Crop/ Animals etc	Breed/Variety	Specific Technology	Yield
1	Low productivity of upland rice	Mid hill lowlands	Rice	Lampnah 1, Shahsarang	Variety	4.5-5.0t/ha
2	Cultivation of low yielding rice varieties	Low and mid hills of Sikkim	Rice	Pusa Sugandh-2, Sasarang, VL-61	Varietals evaluation of rice under organic farming conditions	40 q/ha
3	Identification of short duration & HYV maize composite	Low and mid hills of Sikkim	Maize	Vivek, Sankul, Makka-11	Varietal evaluation of maize under organic farming conditions	45 q/ha
4	Identification of short duration and & high yielding soybean variety	Low and mid hills of Sikkim	Soybean	PK-1042	Varietals evaluation of soybean under organic farming conditions	26 q/ha
5	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Rice	RCPL 3-2 RCPL – 1-87-8 DR 92 TURA 490 Pant Dhan 10 VL 61	Identified high yielding varieties suitable for low and mid hills of Sikkim	35.5 39.8 36.6 38.8 38.8 34.8
6	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Maize	Suwan Megah NLD White Dewaki RCM1-1 Pratap	Identified maize composites suitable for low and mid hills	30.00 31.70 27.60 34.67 28.21 25.91

7	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Finger millet	VL 104 PES 110 PR 722 Indaf 9	Identified finger millet varieties suitable for low and mid hills	34.00 31.52 34.72 33.33
8	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Mustard	INDRE-4 Pusa Agrani Bhagirathi Aravalli	Identified Rapeseed- Mustard varieties suitable for low and mid hills	12.50 0.80 0.30 9.20
9	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Toria	Bhawani Agrani M-27 Panchali	Identified Rapeseed- Mustard varieties suitable for low and mid hills	09.8 09.3 08.9 08.7
10	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Brown sarson	BSH-1 BSC 87	Identified Rapeseed- Mustard varieties suitable for low and mid hills	08.10 07.90
11	The local varieties are adaptive but poor yielder hence they should be replaced with HYV	Low and mid hills of Sikkim (upto 2000m)	Yellow sarson	PRYOS 9805 Binoy Sikkim Sarson 1	Identified Rapeseed- Mustard varieties suitable for low and mid hills	13.50 08.30 08.60

12	Sheath blight disease of maize	Irrigated and rainfed	Maize	DRLT-180, IC-2407, G-RS-07, RKU-193, IC-309233, MZ-80, IC-339731	Tolerant varieties evaluated	25.00
13	Leaf spot of groundnut	Irrigated and rainfed	Groundnut	NRCG-162, 1260, 12311, 12355, 12358, 12438, 12457, 12799, JSP-19	Tolerant varieties screened	11.43
14	Rust of groundnut	Irrigated and rainfed	Groundnut	3196,12858,1086,8956,1913,12927,11197,11088,121482,12255	Tolerant varieties screened	10.5
15	Bacterial blight of tomato and leaf curl in winter genotypes	Irrigated and rainfed	Tomato	BT-1, BT-10, Leaf curl resistance variety-H-12	Evaluated tolerant varieties	250-300
16	Bacterial wilt in brinjal	Irrigated and rainfed	Brinjal	Bholonath, Singhnath	Evaluated bacterial wilt tolerant varieties	140
17	a) Low production of French bean b) Identify good variety of French bean	Nil	French bean	Arka Komal	Evaluation of French bean varieties	77.5q/ha
18	Low yield of sweet potato	Rainfed	Sweet potato	Gouri	Introduction of high yielding variety	1.45kg/plant
19	Lack of knowledge for suitable variety and package of practices	Homestead	Broccoli	Hybrid (F-1), Puspa	Package of practices for cultivation of broccoli Hybrid (F-1), Puspa	50-55 t/ha
20	Improved early variety	Pre-Kharif/summer rice	Rice	RC Maniphou-4 RC Maniphou-5	None	40.00 45.00

21	Low yield of rice	Main kharif	Rice (HYV)	RC Maniphou-6 RC Maniphou-7 Lungnila Phou (Blast resistant)	None	45.00 55.00 50.00 45.00 55.00 50.00
22	Low productivity of upland rice	Mid hill uplands	Rice	Bhalum- 1, Bhalum- 2	Variety	3.5-4.0t/ha
23	Low productivity of rice in high altitude	High hills lowland	Rice	Megharice 1, Megharice 1	Variety	2.5t/ha
24	Lack of tolerant resistant var. against Early Leaf spot disease	Mid altitude	Groundnut	ICGS-76	ICGS-76 was found tolerant to early leaf spot disease and did not require fungicidal sprays for control.	Average yield 2958 kg/ha
25	Non-availability of tomato variety for rice fallow	Rice based cropping system	Tomato	Manikhamnu, Manileima, Manithoibi	High yielding varieties of tomato for hilly region	50t/ha
26	Identification of suitable high yielding varieties/hybrids	Mid hills	Cauliflower	Himkaran, Hybrid 497, Himani	Short duration (50 days), Mid season, Late season	220q/ha, 280q/ha, 400q/ha
27	Identification of suitable high yielding varieties/ Hybrids	Mid hills	Broccoli	Fiesta Lucky	High yielding varieties	>200q/ha
28	Identification of suitable high yielding varieties/hybrids	Mid hills	Cabbage	Bahar	High yielding and suitable for growing from Oct. to Jan	>600q/ha

29	Identification of suitable high yielding varieties/hybrids	Mid hills	Dolichos bean	Kentucky Wonder	Short duration and & semi pole type in nature	500g/plant
30	Identification of ginger variety for fresh and dry consumption for hilly region	Hilly areas	Ginger	Nadia	Ginger variety for fresh and dry purpose	25t/ha