

XI- Workshop

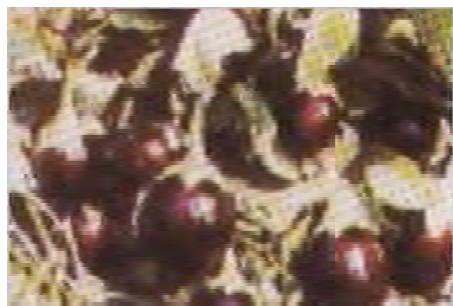
Venue : Dr. Y.S. Parmar University of Horticulture and Forestry, Solan (H.P.)

Date : 4th - 7th June, 1990

Varietal trials

The promising entries which have been recommended for release are given below:

	Crops	Identified lines	Source centre	Identified Zones
1.	Brinjal (long)	H-7	Hisar	IV, VI
		NDB-25	Faizabad	II, IV, VII
2.	Brinjal (round)	H-8	Hisar	II, IV, V, VI
3.	Cauliflower	Early Synthetic (Hyb.)	IARI, Delhi	IV, VIII
		235-S	Pantnagar	II, VIII
4.	Chillies	Sel-1	Hessaraghatta	V, VII, VIII
		LCA 206-B	Lam	V, VI, VII, VIII
5.	Dolichos bean	Deepaliwal	Akola	V, VII
6.	Onion (Rabi)	VL-3	VPKAS, Almora	U.P. Hills
7.	Garlic	G-1	AADF, Nasik	IV, VI, VII
8.	Tomato (determinate)	Sel-7	Hisar	I, IV, V, VII, VIII



H-7 (Hisar Pragati)



NDB-25 (Narendra Brinjal-1)



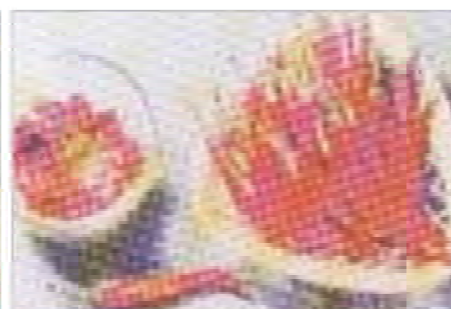
H-8 (Hisar Shyamal)



Pusa Early Synthetic (Hyb.)



Cauliflower- 235-S



Sel.-1 (Arka Lohit)



LCA-206B (Prakash)



Deepaliwal



VL-3



G-1 (Yamuna Safed)



Sel-7 (Hisar Arun)

Heterosis Breeding

Three/four year data provided by the Project Directorate of Vegetable Research were critically examined and the following hybrids have been identified:

	Crops	F1 hybrids identified	Source	Recommended Zones
1.	Brinjal (round)	Pusa Hybrid-6	IARI, Delhi	IV
2.	Capsicum	KT-1	Katrain	I
3.	Muskmelon	M-3 hybrid	IARI, Delhi	IV



Pusa Hybrid-6



KT-1 (Pusa Deepti)



Hybrid M-3

Breeding for Resistance

On the basis of the data the following recommendations were made

	Name of diseases	Identified varieties	Source centre	Zone identified
1.	Bacterial wilt of brinjal	BB-7	Bhubaneshwar	II and IV
		BWR-12	Hessaraghatta	VIII
2.	Yellow-vein-mosaic	P-7	Ludhiana	For all areas where
	Virus of okra	PB-57	Parbhani	Superiority is observed
		Sel-10	Hessaraghatta	
3.	Powdery mildew of peas	PRS-4	Kalyanpur	IV, VI and VII
		JP-4	Jabalpur	IV and VIII



B-7 (Utkal Tarini)



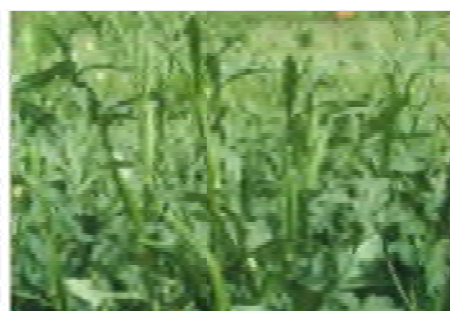
BWR-12 (Arka Nidhi)



P-7



PB-57 (Parbhani Kranti)



Sel.-10 (Arka Anamika)



PRS-4 (Azad P-2)



JP-4 (Jawahar Peas-4)

Vegetable Agronomy

Based on the salient findings of the experiments conducted at the various centres, the following recommendations have been finalized.

- In cauliflower for var. Pant Shubhra, a recommendation of 100 kg N₂, 60 kg P₂O₅ and 60 kg K₂O/ha and a spacing of 60 x 40 cm has been made for Faizabad region.
- In case of Rabi onion var. Pusa Red, application of 150 kg N₂, 60 kg P₂O₅ and 30 kg K₂O/ha with spacing of 15 x 10 cm is recommended under Sabour conditions.
- In case of onion var. N-53, 80 kg nitrogen, 50 kg P₂O₅ and 250 q of FYM/ha with spacing of 45 x 30 cm is recommended for seed crop under Rahuri conditions.
- A recommendation for applying 120 kg N₂, 60 kg P₂O₅ and 60 kg K₂O/ha with a spacing of 60 x 30 cm is made for seed crop of radish cv. Japanese White for Srinagar region has been advocated.
- For controlling weeds in okra var. Pusa Sawani, the application of Basalin @ 1.00 kg a.i./ha as pre-plant incorporation with one hand weeding at 25-30 days after sowing is recommended under Jorhat conditions.
- In case of peas var. Azad P-1, Stomp 1.00 kg a.i./ha as pre-emergence application with one hand weeding after 45 days is recommended for effective weed control in Kalyanpur (Kanpur) region.

3. Disease Control

The following recommendations emerged from the results based on three years data of the research work conducted at various centres.

Brinjal Blight

For effective control of disease in variety Pant Samrat at Pantnagar and Pusa Purple Long at Sabour, it is recommended to treat the seeds with Bavistin @ 1g/kg seed followed by seedling dip in solution of Bavistin @ 0.05% for 15 minutes and application of 2 sprays of Bavistin @ 0.05%, first at 30 days and 2nd at 50 days after transplanting of the crop. This treatment reduced the disease intensity by 50 % and increased the yield by 32 % over control resulting in a net profit of Rs. 3050.00/ha at Pantnagar. At Sabour, the fruit infection was reduced from 61 % as compared to control with an additional yield of 37 to 42% resulting in net profit of Rs. 2200-4000/ha.

Cauliflower

Alternaria Blight (Seed Crop)

For the effective control of the disease in var. Patna Main with significant increase in seed yield under Sabour conditions, it is recommended to treat the seeds with Bavistin @ 1 g/kg seed and apply 3 sprays of Dithane M-45 @ 0.2% at an interval of 15 days soon after the appearance of the disease covering curd, bloom and pods of the crop. This treatment has reduced the disease intensity by 42% as compared to control and increased seed yield by 63% resulting in net profit of Rs. 10,155/ha.



Alternaria blight on cauliflower

4. Chemical Control of Insect Pest

Brinjal

The pest complex (jassids, white fly and fruit borer of brinjal can be effectively managed with 5 sprays at 14 days interval, starting 10 days after transplanting with cypermethrin (30g a.i./ha) or deltamethrin (10 g a.i./ha) or endosulfan (700 g a.i./ha) or two sprays of dimethoate (300 g a.i./ha) + 3 sprays of cypermethrin (30 g a.i./ha) under sabour (Bihar) and Rahuri (Maharashtra) conditions.

Okra

For the control of shoot and fruit borer damage of okra, two alternate sprays of endosulfan (500 g a.i./ha) with two sprays of deltamethrin (10 g a.i./ha) or fenvalerate, cyper methrin or permethrin (all @ 50 g a.i./ha) proved most effective under Sabour conditions of Bihar.

Onion

Four sprays at 15 days interval starting from 30 days after transplanting with cypermethrin (50 g a.i./ha) or permethrin (50 g a.i./ha) were the most effective against onion thrip. These two insecticides increased the yield of onion by 65.93 q/ha and 59.15 q/ha respectively under Karnal conditions of Haryana.