

## XIV- Workshop

Venue : Indira Gandhi Krishi Vishwavidyalaya, Raipur

Date : 2<sup>nd</sup> - 5<sup>th</sup> February, 1995

### Varietal Trials

#### Open Pollinated Varieties

The committee identified the following varieties for release based on the results of three years.

S.N.	Crops	Varieties	Breeding centres	Recommended Zones
1.	Brinjal (long)	Sel -4	Hyderabad	V th i) Bhubaneshwar ii) Hyderabad
2.	-do-	DBSR -31	IARI, Delhi	VI th i) IARI, New Delhi ii) Junagarh
3.	Brinjal (round)	KS-224	Kalyanpur	IV th i) Sabour ii) Ludhiana
4.	-do-	DBR-8	IARI	VI th i) IARI & Anand
5.	Brinjal (small round)	DBSR-44	IARI, Delhi	VI th i) IARI ii) Junagadh
6.	Sponge gourd	Sel- 99	IARI, Delhi	IV & VI th i) Faizabad ii) IARI
7.	Onion	Agri Found Light Red	AADF	VIII th i) Coimbatore ii) Mydukur
8.	Tomato (Det.)	Sel -1-6-4	Ludhiana	Ist Katrain, Pithauragarh
9.	Pea (Mid Season)	PH-1	Hisar	Vth Zone Hyderabad



Sel-4 (Gulabi)



DBSR -31( Pusa Ultam)



KS-224 (Azad B-2)



DBR-8 (Pusa Upkar)



DBSR-44 ( Pusa Bindu)



Sel-99



Agrifound Light Red



Sel-1-6-4

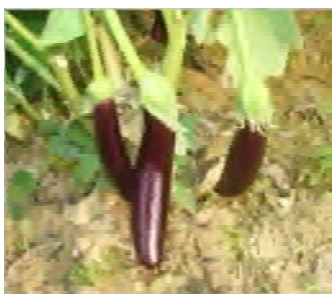


PH-1

## Hybrid Trials

The committee identified the following varieties for release.

S.N.	Crops	Hybrids	Source	Recommended Zones
1.	Brinjal (long)	NDBH-6	Faizabad	IV
2.	Brinjal (small round)	ABH-2	Anand	IV & VI
3.	Cabbage	BSS-32	Beejo sheetal	VII
4.	Tomato (indeterminate)	KT-4	Katrain	IV
5.		NA 601	Nath seed	VI & VII
6.		FMH-1	IIHR	IV
7.	Tomato (determinate)	NA 501	Nath seed	IV & VII
8.		DTH-4	IARI	VII



NDBH-6 (NHB-2)



ABH-2



BSS-32 (Suvarna)



KT-4 (Pusa Divya)



NA-601



FMH-1 (Arka Vardan)



NA-501

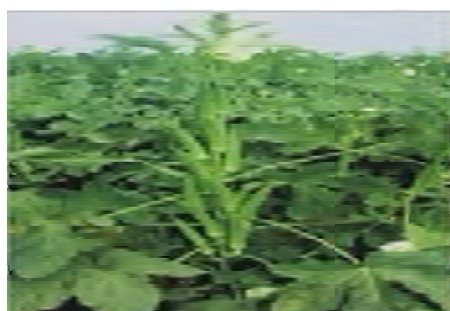


DTH-4 (Pusa Hybrid -4)

## Resistant Breeding Trials

### List of Entries identified for release

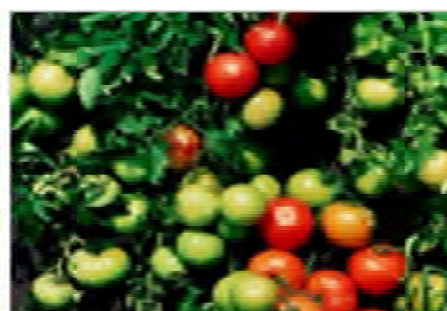
S.N.	Crops	Entries Name	Resistant Against	Source	Recommended Zones
1.	Okra	HRB-55	YVMV	Hisar	VI
2.	Pea	NDVP-4	PM	Faizabad	IV
3.	Tomato	BT-10	Bacterial wilt	Bhubaneshwar	V,VI



HRB-55 (Hisar Unnat)



NDVP-4



BT-10 (Utkal Kumari)

## Vegetable Production Technology

- Application of 40 kg N<sub>2</sub> as basal dose + 10 kg N<sub>2</sub> as top dressing + 10 kg N<sub>2</sub> as foliar application in transplanted chilli resulted in highest yield 230 q/ha with the cost benefit ratio of 1:5.78 under Jorhat conditions.
- In bitter gourd, N:P:K dose @ 60:60:30 kg/ha proved to be most remunerative under Coimbatore conditions and resulted in highest yield of 205 q/ha with cost benefit ratio of 1:3.37. Application of N:P:K @ 90:60:60 kg/ha proved most beneficial under Faizabad conditions for local variety Jaunpuri karela.
- Application of 180 kg N<sub>2</sub> and 120 kg P<sub>2</sub>O<sub>5</sub> under Durgapura conditions and 120 kg/ha each of N<sub>2</sub> and P<sub>2</sub>O<sub>5</sub> under Pantnagar condition for hybrid tomato C:B ratio of 1:2.44 and 1:1.32., respectively is recommended for determinate tomato hybrid ARTH-3 sowing.
- For seed production of mid season cauliflower var. Pant Subhra under Faizabad conditions, application of 120 kg N<sub>2</sub>/ha and 60 x 60 cm planting distance were most effective manifesting 6.42 q/ha yield and cost benefit ratio of 1:4.82.
- In late cauliflower variety Snowball-1 planting at 60 x 45 cm spacing coupled with a nitrogen dose @ 150 kg/ha proved to be most remunerative for seed production under mid-hill conditions of Almora.
- Application of nitrogen @ 150 kg/ha and planting of carrot stecklings at 60 x 30 cm for seed production var. Pusa Meghali resulted in an yield of 12:55 q/ha with 1:4.03 C.B. ratio under Faizabad conditions.
- Application of Pendimethalin @ 1.00 kg a.i. (PE) +1 H.W. at 45 DAT may be recommended for effective weed control in tomato under mid hill conditions of Almora which resulted in an yield of 114.68 q/ha with CB ratio of 1:1.68.
- Application of Fluchloralin @ 1.00 kg (PPI) + 1 H.W. at 45 DAT proved to be most effective for weed control in onion under Durgapura conditions resulting in an yield of 178.88 q/ha with C:B ratio of 1:2.93.
- For higher yield and cost-benefit ratio (1:2.53), application of 240 kg/ha N<sub>2</sub> and 60 kg/ha P<sub>2</sub>O<sub>5</sub> is recommended for capsicum hybrid Pusa Sephali under Solan conditions.

## Disease Management

- For monitoring leaf curl disease of chilli soil application of Thimet @ 1.25 kg a.i./ha was found very effective. The application of Thimet reduced leaf curl incidence and increased yield (35.77 q/ha) over control (21.26 q/ha). The soil application of Furadon @ 1.25 kg a.i./ha was found almost equally effective in reducing leaf curl incidence. The yield observed from this treatment was 32.17 q/ha as against 21.26 q/ha in control.
- Two sprays of Chlorothalonil @ 0.2% at 15 days interval was found effective in reducing the buck-eye rot of tomato at Hessaraghatta centre. The disease incidence of buck-eye rot was significantly reduced (35.56 per cent) over control.
- Four sprays of chlorothalonil 2000 ppm + streptomycin 100 ppm was found very effective in controlling curd rot complex of seed crop of the late cauliflower. The yield was also highly significant over control and increased upto 8.38 q/ha as compared to 4.48 q/ha in control at Katrain centre. At Sabour cauliflower seed treatment with 100 ppm plantomycin for 2 hr. followed by dipping in 0.5% sodium chloride solution was found highly effective in reducing the curd rot disease of cauliflower.
- Four sprays of Tridemorph @ 0.05% at 15 days interval was most effective in controlling powdery mildew disease of okra under Coimbatore conditions. The average per cent disease index was recorded only 1.17 over check (43.33). The yield recorded was 57.15 q/ha in treated plot as compared to (43.7 q/ha) in control plot.

## Insect Pest Management

### Cabbage

- Diamond back moth can be successfully managed by sowing mustard as a trap crop between the rows of cabbage, 15 days before cabbage planting along with 2-3 sprays of dichlorvos @ 1 kg a.i./ha in mustard and 2 sprays of cartap hydrochloride @ 500 g a.i./ha or 5% neem seed extract in cabbage, starting from primordial stage of the crop at 15 days interval under Rahuri conditions.

### Onion

- Four sprays of Monocrotophos @ 350 g a.i./ha at 14 days interval starting from 30 days after planting effectively controlled onion thrips when sandovit sticker @ 0.5ml/lit. was added in the insecticide solution at Sabour conditions.

## Biochemistry and Processing

- **Biochemical composition of vegetable varieties released/identified at AICVIP**

Thirty-two varieties of tomato were analysed for TSS, vit. C, dry weight, acidity and lycopene. The maximum TSS was recorded in NA 501(5.2) followed by NA 701. XLE006, DTH-6 and ARTH-15 whereas maximum dry matter content was found in Pusa Hybrid followed by HOE -606. The higher vit. C content was found in Sel. 30 followed by var. PH-2. The highest acidity was noted in Phule Hybrid followed by AN-2. Tomato var. BSS-39 showed maximum lycopene content among varieties.

- **Biochemical evaluation of different varieties of muskmelon**

Various biochemicals were determined in 10 varieties of muskmelon. Maximum dry matter was noted in Hara Madhu of Ludhiana followed by PSGR-2-6-1 and MHCC-2-4-28, while highest TSS was