Table 4. Screening for major pest and diseases under field conditions

S.No.	Hybrid/Variety	% of incidence Wilt	Grey mould	Semilooper larvae /plant
1.	TMVCH1	6.8	12.7	3.0
2.	GCH4	12.9	15.4	3.8
3.	TMV2	9.9	16.3	4.9
4.	TMV5	10.4	14.6	5.2

3. Nods to primary raceme : 14 to 19 (mean 16)
4. Nature of internode : Elongated
5. Leaf shape : Flat
6. Spike nature : Semi-compact
7. Capsule : Spiny, non-shattering
8. Seed : Medium sized, light chocolate with conspicuous mottling

This hybrid is ideally suited for raising both as pure crop and intercrop during Kharif (June-September) in Salem, Namakkal, Erode and parts of Trichy and Pudukottai districts of Tamilnadu.

In view of superior performance in yield and high oil content, TMVCH1 was released in 998 as the first castor hybrid for Tamilnadu.

ACKNOWLEDGEMENT

The staff of the units of Agronomy Entomology, Pathology and Chemistry are earnestly acknowledged for the help rendered.

Received : Aug 1998 Revised : March 200

Madras Agric. J., 86(1-3): 96 - 99 January - March 1999
https://doi.org/10.29321/MAJ.10.A00563

SNIGDHA, AN IMPROVED VARIETY OF GROUNDNUT FOR UPLANDS

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ABSTRACT

Initial evaluation trials were conducted with 18 superior types and 18 extra early segregants from the F8 progenies during 1993. From the IETs, seven high yielding types and nine high yielding, extra early progeny bulks were selected and subjected to CYTs during kharif 1994 and 1995 at the College of Agriculture, Vellayani along with check varieties. Two promising types, VGE 55-1 and ISKO 8805 with high yield and two cultures, Cul.15 and cul.18 with high yield and early maturity were advanced to farm trials along with TMV 2 and local check at 9 locations in Thiruvananthapuram district during kharif 1996. Culture 18 with high yield and early maturity was recommended for release as Snigdha suitable for cultivation in the uplands of Thiruvananthapuram district.

KEY WORDS Groundnut, Extra early, High yielding, Snigdha

Groundnut is one of the most important oilseed crops and the edible oil economy in India is primarily dependent upon groundnut production. The major portion of groundnut produced in India is utilised for oil extraction (Maiti et al, 1988).

Because of high population pressure on land there is only limited scope for increasing the area under groundnut. Lack of high yielding varieties with early maturity is the main constraint in the large scale cultivation of this crop in the uplands of Kerala. Therefore, a research programme was initiated in the Department of Plant Breeding and Genetics, College of Agriculture, Vellayani during 1992 to develop groundnut varieties with high yield and early maturity suitable for cultivation in the uplands.

Table 1a. Initial evaluation trial of groundnut types

S.No.	Types	Days to maturity	Pod yield (kg ha $^{-1}$)
1.	ISKO 8805	110	3080
2.	9-2-2	115	1600
3.	10-1-1	108	2160
4.	14-2-1	114	1960
5.	INS 8916	112	2360
6.	INS 8917	115	2200
7.	INS 8918	112	2360
8.	INS 8927	117	2600
9.	ICGS(E)21	114	1800
10.	VGE 41-1	112	2240
11.	VGE 55-1	116	3160
12.	AIS 8902	110	1880
13.	Spanish Improved	110	2240
14.	ICGU 86013	116	2520
15.	NRCGE 2	105	3040
16.	TMV 2	115	2360
17.	TG 3	109	2120
18.	JL 24	110	2480
	CD. (0.05)	—	471

Table 1b. Initial evaluation trial of groundnut cultures

S.No.	Types	Days to maturity	Pod yield (kg ha $^{-1}$)
1.	Culture 1	87	3800
2.	Culture 2	85	3840
3.	Culture 3	85	3080
4.	Culture 4	90	2360
5.	Culture 5	88	3440
6.	Culture 6	90	2920
7.	Culture 7	88	3040
8.	Culture 8	90	2920
9.	Culture 9	88	2800
10.	Culture 10	86	2720
11.	Culture 11	93	2840
12.	Culture 12	95	2880
13.	Culture 13	89	3680
14.	Culture 14	88	2840
15.	Culture 15	87	3640
16.	Culture 16	89	3840
17.	Culture 17	88	4280
18.	Culture 18	89	3800
	CD. (0.05)	—	460

METERIALS AND METIIODS

The material consisted of promising types collected from the test entries of the All India Co-ordinated Research Project on Oilseeds and extra early segregants available in the Department of Plant Breeding and Genetics. Two Initial Evaluation Trials were conducted at the College of Agriculture, Vellayani during 1993 with 18 superior types and also with 18 extra early segregants from the F8 progenies. From the IETs, seven high yielding types and nine extra early segregants were selected and subjected to two separate CYTs during Kharif 1994 and 1995 at the College of Agriculture, Vellayani.

Two promising types, VGE 55-1 and ISKO 8805 and two high yielding early maturing cultures, Cul.15 and Cul.18 were advanced to farm trials along with TMV 2 (standard) and local variety as checks. Farm trials were conducted at nine locations in Thiruvananthapuram district in 20 m^2 plots in the interspaces of coconut garden during Kharif 1996 including a station trial at the College of Agriculture, Vellayani. The cultural and management practices were carried out as per the package of practices recommendations of the Kerala Agricultural University (KAU, 1993).

RESULTS AND DISCUSSION

The LET data of types and cultures are presented in Tables 1 a and 1 b. Seven promising types viz. ISKO 8805, Spanish Improved, INS 8917, INS 8927, VGE 55-1, IGGU 86013 and NRCGE 2 which had high pod yield were selected and subjected to CYTs along with the three checks (TG 3, TMV 2 and JL 24) . Nine superior cultures were selected from the segregants and subjected to CYTs during Kharif 1994 and 1995 along with the check variety TMV 2. The CYT data of promising types and cultures are presented in Tables 2 a and 2 b . Based on the pooled mean yield data of two years, two types with high yield viz. VGE 55-1 (3200kg ha^{-1}) and ISKO 8805 (2711 kg h^{-1}) with a duration of 112 daysand 109 days respectively and

Table 2a. Comparative yield trial with groundnut types

S.No.	Cultures	Days to maturity		Pod yield (kg ha^{-1})		
		Kharil 1994	Kharif 1995	Kharif 1994	Kharif 1995	Pooled mean
1.	TMV 2	115	115	2222	2600	2422
2.	TG 3	106	109	2022	2022	2022
3.	JL 24	114	113	2178	2089	2133
4.	Spanish Improved	110	109	2289	2556	2422
5.	ISKO 8805	110	107	2556	2844	2711
6.	INS 8917	115	115	2067	2556	2311
7.	VGE 55-1	116	108	3022	3378	3200
8.	ICGU 86013	108	116	2400	2689	2556
9.	NRCGE 2	105	104	2022	2111	2067
10.	INS 8927	115	117	2200	2667	2422
	C.D.(0.05)	1.4	1.4	NS	276	300

two cultures viz. Cul. 15 (3827 kg ha^{-1}) and Cul. 18 (3556 kg ha^{-1}) with a duration of 86 and 87 days respectively were advanced to farm trial. The farm trial data are presented in table 3. Based on the pooled mean yield data of nine locations, two types and two cultures (ISKO 8805, VGE 55-1 and culture 15, culture 18) were found to be on par and significantly superior to the standard check and local variety. Culture 18 is early maturing (87 days) as compared to VGE -55-1 and ISKO 8805 (112 and 109 days respectively). It recoreded a mean pod yield of 2458 kg ha^{-1} as compared to local (1882 kg ha^{-1}) and TMV 2 (1975 kg ha^{-1}). Culture 18 recorded 30.6 per cent increase in pod yield over the local variety and 24.5 per cent increase over the standard check (TMV 2).

Moreover, culture 18 which is almost free from major diseases and pests is having an oil content (47 per cent) and protein content (24.3 per cent).

Table 2 b. Comparative yield trial with early cultures

S.No.	Cultures	Days to maturity		Pod yield (kg ha^{-1})		
		Kharif 1994	Kharif 1995	Kharif 1994	Kharif 1995	Pooled mean
1.	Culture 1	86	87	3533	2889	3026
2.	Culture 2	85	85	3978	2378	3185
3.	Culture 3	86	85	3778	2734	3216
4.	Culture 9	88	88	3111	2667	2844
5.	Culture 13	89	89	4022	2156	3093
6.	Culture 14	87	87	3022	2622	2829
7.	Culture 15	86	86	4467	3111	3827
8.	Culture 16	89	83	3333	2111	2722
9.	Culture 18	86	87	4311	2889	3556
10.	TMV 2	114	111	2222	2600	2422
	C.D.(0.05)	1.3	-	-	387	798

Table 3. Farm trial date on groundnut types/cultures conducted during kharif 1996

S .No.	Location	Pod yield (kg ha^{-1})					
		VGE 55-1	ISKO 8805	Culture 15	Culture 18	TMV2 (standard)	Local variety
1.	Kollayil	2675	2600	2425	2500	2000	1950
2.	Thirupuram	2500	2585	2600	2300	2050	1875
3.	Chenkal	2475	2750	2500	2800	2150	2000
4.	Athiyanoor	2300	2150	2400	2300	1900	1800
5.	Paudikonam	2460	2700	2500	2725	2200	1875
6.	Kazhakoottan	2200	2320	2000	2180	1700	1750
7.	Panangode	2285	2150	2350	2400	1880	1800
8.	Venganoor	2650	2550	2450	2420	2020	2060
9.	College of Agriculture, Vellayani	2415	2505	2375	2500	1875	1900
	Mean	2440	2479	2400	2458	1975	1882

"F" value for treatment was significant CD ar 5% = 103.6

Culture 18 with high yield and early maturity was recommended for release as "Snigdha " suitable for cultivation in the uplands of Thiruvananth apuram district by the state seed sub Committee on crop variety release during May 1998.

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(Received : Aug 1998 Revised March 2000.)

Madras Agric. J., 86(1-3): 99 - 103 January - March 1999

KNOWLEDGE ORIENTED TRAINING NEEDS OF AGRICULTURAL OFFICERS UNDER TAMIL NADU AGRICULTURAL DEVELOPMENT PROJECT (TNADP)

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ABSTRACT

One of the very important steps in any training programme is identifying the needs of trainees. The knowledge oriented training needs expressed by AOs are management, administration and supervision, programme planning and project formation, pomology, olericulture, agroforestry, pisciculture, dairying, plant protection measures, seeds and sowing, IPM, biological control of pest and disease and production and use of biofertiliser.

KEY WORDS: Knowledge, Training needs, Agricultural Officers

Training has been recognised as an important input in improving the professional competence of extension personnel for effective transfer of technology to the farming community. Tamil Nadu