

## Srisailam A New Promising Mungari Variety

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Selection 1512 is an *arboreum* variety suitable for *Mungari* (*kharif*) sowings both as a pure crop or as a mixed crop either with *Setaria* or groundnut in red, light or mixed soils of Kurnool district. This selection has given 24 per cent increased yield over Pandaripur Mungari, a non-descript variety cultivated in Rayalaseema area. It was released for general cultivation in the year 1973 christened as "Srisailam" for *Mungari* tract of Kurnool district. Srisailam is a narrow lobed, white flowered type with semi-cleistogamous habit which is an advantage in maintaining the purity. By growing this variety, the cultivator will get an additional profit of Rs. 385/- per hectare.

Cotton, an important cash crop, is grown in an area of over 2 lakh hectares under rainfed condition in Kurnool District of Rayalaseema. Out of this area, *Kharif* cotton, locally known as *Mungari* (a *desi-arboreum*) occupies 30,000 hectares. The *Mungari* cotton, as its name implies is sown with the onset of South-West monsoon in June-July. With the characteristic uncertain, erratic and ill-distributed rainfall of the region, the *Mungari* cotton has to survive long periods of drought in its early phase of growth.

To evolve a high yielding medium stapled hardy *desi* variety (*arboreum*), capable of withstanding long periods of drought, work was taken up in 1969 at the Cotton Research Station, Nandyal, the results are presented in this paper.

### MATERIAL AND METHODS

A number of selections isolated at Cotton Farm, Adoni and Narasarapet

(closed scheme), as well as extra State types was tested at Cotton Farm both at Adoni and Nandyal. Among them, selection 1512, a hybrid derivative of 197-3 and Cocanadas-White of Narasarapet was found promising; but had varied for morphological and lint characters. A systematic screening for morphological characters and lint characters was done, on the lines of the modal bulk system developed by Manning (1964). A number of productive single plants, possessing the desired morphological characters was selected in the field and subjected to laboratory measures for mean halo-length and ginning. Seeds from plants that passed the set norms were sown next year. Lines conforming to the norms fixed were bulked and the material so obtained was used for testing in yield trails during subsequent seasons.

### RESULTS AND DISCUSSION

Selection 1512 can be grown both in red and light soils and is capable of

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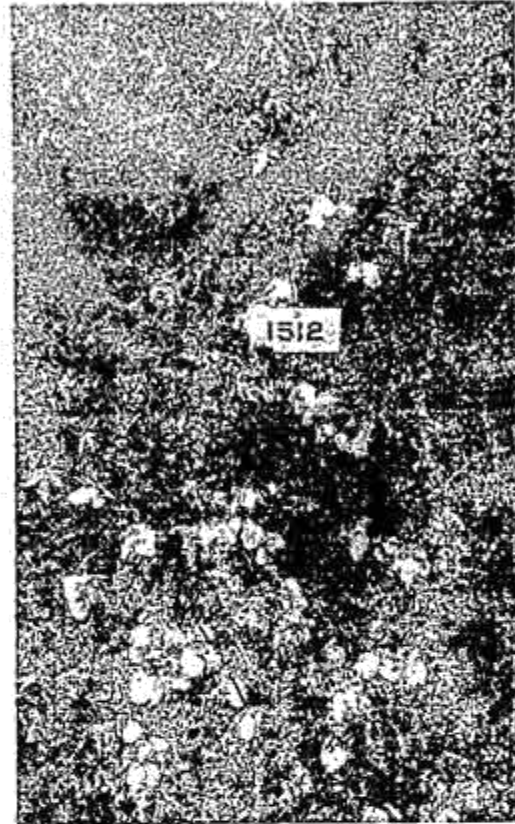
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withstanding drought as well as higher rainfall. The plant is erect and slightly bushy with 4 or 5 monopodials and is early maturing with the first sympodium at 5th or 6th node (Fig.). It is characterised by narrow leaf lobing, deeply cut; Flowers are white with prominent petal spot and semi-cleistogamous in habit, which is an advantage in maintaining purity. It was tested along with Cocanadas-White and Pandaripur Mungari as local checks at Cotton Farm, Adoni (from 1969-70 to 1972-73) and at Cotton Research Station, Nandyal (from 1973-74 to 1974-75). On an average, selection 1512 yielded 408 kg. of kapas per hectare at Adoni and 437 kg/ha at Nandyal as against 333 kg/ha given by Cocanadas-White and 336 kg/ha of Pandaripur Mungari.

Selection 1512 was also tested in the Coordinated Varietal Trial at Nandyal for three years (1972-73 to 1974-75) for two years at Mudhol and one year (1973-74) at Kovilpatti. The results at Nandyal are presented in Table I.

Among the entries, 1512 gave significantly higher yields in all the three years.



At Mudhol (Adilabad district of Andhra Pradesh), selection 1512 gave, on an average, 593 kg. of kapas per hectare as against 456 kg. of Gaorani-6

TABLE I Coordinated Varietal Trial. Cotton Research Station, Nandyal (1972-

Variety	Source	Mean kapas yield (kg/ha)	Mean G. P.	M. H. L. (mm)	Mean of
1512	(Nandyal, A. P.)	416	37.0	23.1	3 years
0321	(Tamil Nadu)	166	33.4	24.7	3 years
0713	(Tamil Nadu)	215	31.8	25.2	2 years
0741-1	(Tamil Nadu)	164	31.8	25.2	2 years
C. C. 1-1-3	(Maharashtra)	200	35.3	23.2	2 years
Nandicum	(Nandyal, A. P.)	186	30.9	22.9	3 years

and at the Agrl. Research Station, Kovilpatti, it recorded 1122 kg/ha as against 644 kg/ha by K8 (1973-74).

Selection 1512 was also tested in cultivators' holdings for three years (1972-73 to 1974-75) and it recorded

933 kg. of kapas per hectare as against 650 kg of Pandaripur Mungari and 370 kg of Cocanadas-white.

The overall mean performance of selection 1512 with regard to yield and fibre properties is presented in Table II.

TABLE II Mean performance of selection 1512.

Particulars	1512	Cocanadas White	Pandaripur Mungari
Yield in kg/ha	417	337	336
Mean fibre length (mm)	22.6	21.9	21.5
Mean ginning %	36.9	35.7	35.2
Micronaire value	5.2	5.2	...
Fibre wt./millitex	203	203	165
Maturity co-efficient	0.74	0.74	0.76
P. S. I. (lb/mg)	8.7	8.6	8.8
C. S. P. 20's	1944	1836	1437
30's	1641	1364	1173
H. S. C.	30's	20's	20's

In view of its over all better performance, the new selection 1512 was released in 1976 by the State Variety Release Committee for cultivation in *Mungari* tract of Kurnool district in name of "Srisailam".

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#### REFERENCE

- MANNING, H. L. 1964. Report on the potential for increasing production and qualities of long staple cottons grown in India I. C. C. C. Pub. 11-12.