

Westerns 1. Cotton—Its Status and Work in Progress for its Spread

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Introduction : Cotton is one of the major commercial crops grown in the Ceded Districts. It occupies nearly a third of the area under cultivation specially in black cotton soil tracts. In recent years groundnut also is raised over extensive areas on account of the high prices. Generally the rainfall and the time of receipt of rains decide the crop (cotton or groundnut) that will be raised. The Westerns tract, comprises the black soil areas of Bellary, and Anantapur districts, and portions of Pattikonda taluk of Kurnool district and Pulivendla, Proddatur, Jammalamadugu taluks of Cuddapah district. The total area grown to cotton in this zone is about $6\frac{1}{2}$ lakhs of acres. During war time there was a slight fall in the area under cotton on account of the Grow More Food Campaign and also due to the restrictions placed on growing commercial crops. With the partition of India we fell short of cotton. To cover up the deficiency and meet the demand we had to divert more area to cotton and extension work assumed importance. Effective schemes had to be put into operation so that the country might produce sufficient cotton for its needs.

There are two main seasons in the tract known as "*Mungari* and *Hingari*". Mungari is the early season commencing from May-June and Hingari the late season commencing from August-September. This tract is mainly rainfed. An Arboreum type of cotton locally known as "*Sokda*" is raised in the early season. This is a short-stapled type with a ginning percentage of 33 and coarse to the touch, with a low spinning count and is inferior to the Westerns. This variety has a high yielding capacity ranging from 500 to 800 lb. of kapas per acre.

The variety raised in the Westerns zone in the late season is a Herbaceum type, H. 1., evolved at the Agricultural Station, Hagari. It has a staple of $13/16$ " with an average ginning percentage of 28 and can spin up to 26 counts. It has a very good gloss, is white in colour and silky.

In recent years it is reported that Mysore-American cotton is extending in Harpanahalli, Hadagalli, and Kudligi taluks of Bellary district where the average rainfall is slightly higher. The Hyderabad American (H. A. 11.) is also spreading in Siruguppa taluk along the banks of the Tungabhadra and in the valley portions of Tekkalakota firka.

Previous Work: The strain H. 1. was a selection from H. 25 of the Agricultural Station, Hagari and was given for distribution as early as 1924. The initial work of seed multiplication was taken up round about Hagari and later expanded to Bellary taluk. This strain has been

very popular with ryots and almost the entire area under Westerns has been now covered. When the demand increased the headquarters of the Special Agricultural Demonstrator was fixed at Guntakal from 1926 onwards. From about 200 to 250 acres the area has now been extended to 6,500 acres. The following table gives the areas of the seed farms from 1942 onwards.

Years.	Area under seed farms
1942—'43	3,000 acres
1943—'44	3,000 "
1944—'45	3,000 "
1945—'46	5,000 "
1946—'47	4,984 "
1947—'48	4,935 "
1948—'49	5,000 "
1949—'50	3,735 "
1950—'51	6,500 "

Previously the ryots were being given the pure seed received from the Agricultural Research Station, Hagari free of cost at the beginning of the sowing season, with a definite understanding that they should cart kapas to the selected gin and return the seeds in equal quantities or at $1\frac{1}{4}$ times to that supplied originally. The rest of the seeds was purchased at the prevailing market rates. This system has been now replaced by an outright sale of seed to the ryots. Cultivation advances ranging from Rs. 10 to 20 per acre are also given, and all other conditions are the same as in previous years. The seed farm villages mostly comprise the black soil areas of Bellary and Anantapur districts round about Guntakal, within a radius of 10 miles. This area was selected on account of a more assured rainfall than in Bellary taluk and Guntakal being a centrally situated place the transport of seeds was easier. In this area the Mungari cotton is generally not grown in the vicinity of seed farms. Thus the possibility of mixing the inferior *mungari*, variety with the Westerns is avoided. The Guntakal market is reputed for the purity of lint and seed and is maintaining its reputation.

In the Westerns zone, the I. C. C. C. started a scheme in 1932 for a period of two years for quickening the spread of the strain in the zone and aiming at covering the entire Westerns zone by this strain. This scheme commenced in May 1933 but had to be given up after one year due to the difficulty of securing the co-operation of the local co-operative sale societies who were not themselves in a strong position for want of sufficient capital. However, due to the great demand for pure H. 1. cotton seed, a scheme was sanctioned with financial assistance from the Indian Central Cotton Committee for a period of five years from 1942—'43 at a cost of Rs. 1,01,000/-. According to this revised scheme outer seed farms had to be run by the Agricultural Department, at three centres, Bellary, Adoni and Guntakal.

	Seed farm area for each centre.
1st Year	2,000 acres
2nd "	5,000 "
3rd "	7,500 "
4th "	10,000 "
5th "	...

The 3,000-acre seed farm at Guntakal is to work as an inner area for supplying seed material to the outer seed farms. Seeds produced on the outer seed farms had to be purchased by the co-operative societies in the three centres and sold to ryots. This scheme also had to be closed in 1946, after running for four years due to various practical difficulties. Since then the seed farms at Guntakal have become the main source for production and supply of pure H. 1. seeds in this area.

There has been an increasing demand for the supply of H. 1. cotton seeds and the work of seed multiplication at Guntakal may be divided into zones so that the ginning and distribution of seed is effected in time. In order to gin the kapas quickly and to maintain the purity of the seed a departmental ginnery may be opened with advantage. The seed for sowing may be issued free at the first instance and later recovered in kind at ginning time so that more ryots could have the benefit of the scheme. The purchase of seed farm kapas by the Government and ginning it in a departmental gin would help the production of greater quantities of seeds and also maintain the purity. The payment of premium for seed farm lint by the purchasing firms, if announced prior to the sowing period, would act as an inducement for more ryots in the seed farm sphere, resulting in the larger production of seed. The quantity of nucleus seed supplied by the Agricultural Station is inadequate to cover the entire primary seed farm area and as such the seeds procured from the first crop have also to be used for sowing seed farms. Arrangements to have greater supplies of nucleus seed would be welcome. Any loss in the purchase price of cotton seed intended for sowing purposes due to market fluctuations at the time of procurement and sowing periods should be subsidised by the Government. Picking of kapas is usually done in this tract during midday, when the bracts would have dried up, making clean picking impossible. Pickings if attended to during the early hours of the day would avoid dried-up leaves, dust and dirt getting mixed up with the kapas. To enhance the reputation of the Westerns, clean pickings should be insisted upon and every mill owner should have a kapas opener so that the blowroom loss in the mills is reduced which is now reported to 5 to be 6%. In order to cover the entire area in quick time the system of exchange of seeds of of H. 1. with the sowing material of ryots, which is usually admixed with all kinds of seeds is suggested, provided any loss in this is indemnified by the Government.

Results: The strains released by the Agricultural Station, Hagari are being tried in the districts but so far no variety that is suited to the tract and could compete with the Westerns has been released for large-scale distribution. A variety, 2800, was sent out for trials and it was noted that though the yield was slightly greater and of better colour, there was no improvement in staple or ginning. The American varieties M. A. 11 and G. IX Co. 2 were tried with H. 1. as control. M. A. 11. gave an yield of 330 lb., G. IX Co. 2. 220 lb. and H. 1. 200 lb. per acre. The ryots are not favour of the American types as these have to be sown by the middle of August and are attacked with Jassids and Blackarm disease. Hence, the possibility of introducing the American types in these areas is to be re-examined, and confined to low-lying areas and in places where the rainfall is better.
