

Maximisation of Cotton Production in Madras State with special reference to Coimbatore district*

by

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Introduction : India occupies the foremost position among the cotton growing countries of the world in respect of acreage with an annual area of 19 to 20 million acres. However, the country ranks only fourth in total production estimated around 58 lakh bales at present and valued at about Rs. 300 crores. Cotton is one of the most important commercial crops in India occupying a leading place in the agricultural and industrial economy. The value of actual exports of raw cotton and finished cotton goods is of the order of Rs. 72 crores per year. The country imports about eight lakh bales of extra-long and long staple cotton valued at Rs. 50 to 60 crores per year.

Apart from those employed in producing cotton in the field and processing at the ginning and pressing factories, the cotton textile industry provides employment for over eight lakh workers in the mills and over 25 lakh workers in the handloom and powerloom sectors. Thus, cotton is woven closely into the fabric of the country's economy.

It was anticipated that India will produce 63.4 lakh bales of cotton by the end of the Third Plan period, but the present estimates veer around 56 to 58 lakh bales only.

The Madras state is one of the important cotton producing States in India, especially from the point of production of long staple cotton. The varieties of cotton like MCU-1, MCU-2 and MCU-3 developed and extensively cultivated in this State fall under the category of superior long staple, with length of 1-1/16" and above. In *Karungannies*, strains like K-6 and K-7 fall under the long staple group with a length of 31/32" and above. Therefore, Madras state has a very important role to play in stepping up the production of superior varieties of cotton and contribute to the overall economy of the Nation.

Plan targets and Programmes : The targeted level of production of cotton in Madras State is 5.20 lakh bales by the current year, 1965-'66 i. e. end of the Third Plan and the production target to be achieved by the end of the

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Fourth Plan i. e. 1970-71 has been fixed at 6.45 lakh bales. Thus, during the Fourth Plan period this State will have to achieve an additional production of 1.25 lakh bales.

The above increase in production will have to be achieved through expansion of area under cotton to the extent possible and mainly through the adoption of intensive cultivation measures like use of improved seeds, use of fertilizers, provision of irrigation, adoption of plant protection measures and adoption of improved agricultural practices in the existing area.

Among the various cotton growing districts in Madras State, Coimbatore occupies the foremost place with nearly 30 per cent of the total area under cotton in the State and contributing about 36 per cent to the total cotton produced in Madras State. The Coimbatore farmers are very progressive and are keen to adopt all intensive cultivation measures for increasing production. This district has, therefore, a significant role to play in increasing cotton production in Madras State. With a view to increasing the production of cotton, the Coordinated Cotton Development Scheme, the Package Programme, the Intensive Agricultural Area Programme, and Indian Cotton Mills Federation's Cotton Development Project are all in operation in this State and particularly in the Coimbatore district. Various measures for expansion of area as well as adoption of intensive cultivation practices are being taken under these Projects.

It is gratifying to note that in the Package Programme areas and in the Project areas operated by the Indian Cotton Mills Federation, an increase of 44 per cent in yield was recorded during the year 1964-65. Thus, the efficacy of adoption of intensive cultivation measures as a 'package' is beyond question. With the progressive increase in area under the Package programme during the Fourth Plan period, it is anticipated that a substantial contribution of over 50,000 bales per year would be additionally made from the Package Programme areas by the end of the Fourth Plan.

It is recognised that proposals for increased production can be formulated specifically for each of the following categories of cotton tracts.

1. Areas receiving irrigation from wells or canals,
2. Areas receiving assured rainfall for raising a good crop and
3. Scarcity rainfall areas.

During the Fourth Plan period, the entire irrigated area under cotton is proposed to be brought under the Package Programme in progressive stages and proposals for the use of fertilizers in the assured rainfall tracts have also been formulated.

As regards scarcity rainfall areas, two new irrigation projects *viz.*, Lower Bhavani and Parambikulam—Aliyar have been commissioned to benefit large areas in the Coimbatore district. The development of cotton cultivation in these Project areas can add substantially to cotton production in this State.

Cotton development in irrigation Project areas : The Lower Bhavani Project was commissioned in the year 1954 for providing irrigation facilities to the dry land tracts in the taluks of Gobichettipalayam, Bhavani, Erode and Dharapuram in Coimbatore district and parts of Karur in Tiruchirapalli district. The ayacut was intended to command a total area of 2.07 lakh acres in the above tract and as per the original cropping pattern drawn up for the Project, an area of ten thousand acres in the low lying tracts was to be put under paddy and the remaining area was earmarked for growing dry-irrigated crops of cotton and millets, in roughly equal proportions.

Thus, under this Project, an area of nearly one lakh acres was anticipated to be raised with irrigated American cotton. During the initial stages, after the commissioning of the Project, water was let into the channels for a period of 6½ months from 15th September to 31st March during each year. With the availability of water in the channels during a continuous period of 6½ months in the entire Project area, the problem of seepage and rise of water table in the area resulting in higher levels of water in the existing wells were encountered. Apart from the above features, with a natural tendency to grow paddy with the availability of water, the anticipated area of nearly one lakh acres under cotton was never reached. The highest area under cotton was 43,000 acres recorded in 1956-'57 out of a total area of about 1.36 lakh acres cultivated under irrigation in the Project during that year. The area under paddy during 1956-'57 was about 23,000 acres. However, in subsequent years the area under paddy almost trebled itself to about 67,000 acres in 1958-'59 and was accompanied by reduction in the area under cotton to about 20,000 acres.

From the year 1959-'60 onwards the irrigation authorities introduced a turn system for letting in water in the ayacut commanded by this Project. Under this system, half the area under the ayacut receives water continuously for a period of four months from 15th August to 15th December and the remaining half of the ayacut area receives water in the next turn from 16th December to 15th March. With the introduction of this turn system for letting in water during periods which do not fit in exactly with the normal season for cotton cultivation, the area under cotton decreased considerably to about 5,000 acres during the winter season.

South-West monsoon, the new early maturing strain developed from Russian cotton may be grown in the areas where the longer duration of MCU varieties would limit cotton cultivation.

The Russian cotton strain PRS-72 was cultivated in an area of 0.45 acre during the 1965 summer season at the Rural Extension Training Centre, Bhavanisagar. The crop was sown on 6th April 1965 and the final picking was completed on 4th August 1965, thus taking a total of 121 days duration. Manuring to supply 80 lb nitrogen, 30 lb P_2O_5 and 30 lb K_2O per acre was done and the plant protection schedule comprised of four sprayings only. An yield of 1480 lb *kapas* per acre was recorded from this area, thus demonstrating the scope for cultivation of the short duration variety during the summer season in the Lower Bhavani Project area.

With the adoption of the new cropping pattern, it would be possible to cultivate annually about 50 thousand acres under irrigated cotton during the summer season in the 'first turn' areas and in about 50 thousand acres under winter season cotton in the 'second turn' areas, thus fulfilling the original objective of the Project and contributing to the maximisation of cotton production in the State.

The Parambikulam-Aliyar Project recently commissioned is expected to ultimately command a total irrigated area of 2.40 lakh acres. Out of this area, it may be possible to bring in about one lakh acres under irrigated American cotton. This will be a switch over from the rainfed *Karunganni* cotton at present cultivated in this area. It would be preferable to confine the cultivation of irrigated American cotton to the red and mixed black soil areas in this tract, since in the heavier black soil zones, American cotton will not do well under irrigation.

Summary: Cotton is one of the most important commercial crops in India occupying a leading place in the Agricultural and Industrial economy of the Nation.

It was anticipated that India will produce 63.4 lakh bales of cotton by the end of the Third Plan period; but the present estimates range between 56 and 58 lakh bales only for the year 1965-'66.

Madras State is one of the important cotton producing States in India, especially from the point of production of long staple cotton. During the Fourth Plan period, this state has proposed to increase its production from 5.2 lakh bales to 6.45 lakh bales.

Among the various cotton growing districts in Madras State, Coimbatore occupies the foremost place and this district has, therefore, a significant role to play in increasing cotton production in Madras State.

To achieve the additional production of 1.25 lakh bales by the end of the Fourth Plan period, the entire irrigated area under cotton is proposed to be brought under the Package Programme in progressive stages, and proposals for the use of fertilizers in the assured rainfall tracts have also been formulated.

The development of cotton cultivation in the Project areas under Lower Bhavani and Parambikulam-Aliyar would make a substantial contribution to increasing cotton production in Coimbatore district.

Recognising the scope for introducing cotton as an irrigated summer crop in the Lower Bhavani Project area, a cropping pattern ensuring a balanced programme of development of all the crops like Paddy, Cotton and Millets has been suggested. The extension of the short duration variety of Russian cotton in the summer season has also been recommended.

It is hoped that with the extension of area under summer cropping of cotton and through the adoption of intensive cultivation measures as a 'package', maximisation of cotton production will be achieved in Madras State according to the Plan targets.
