

## How Madras State Organised Border Planting of *Sesbania Speciosa*

by

A. MUHAMMAD ALI, B. sc. (Ag.)  
Joint Director of Agriculture, Madras

The development of *Sesbania speciosa* in Madras State may be deemed as one of the most outstanding achievements in the field of agricultural development. In fact, the progress achieved was so remarkable that it now looks like a story from a fairy tale. The din of the work has subsided leaving behind it unalterable trails. It is now time to take stock of how the whole thing was achieved and executed. The present note gives a review of the work.

In the State of Madras the normally grown green manure plants are Wild Indigo (*Tephrosia purpurea*), Indigo (*Indigofera sumatrana*), Sunnhemp (*Crotolaria juncea*), Pillipesara (*Phaseolus trilobus*), Dhaincha (*Sesbania aculeata*) and *Sesbania speciosa*. Wild Indigo thrives well in sandy soils and sandy loams, Indigo in loams, Pillipesara in clayey soils, Sunnhemp in loamy soils and *Sesbania* in all types of soils. Further Sunnhemp flowers in and is ready for incorporation into the soil as green manure by about 40—45 days while Dhaincha is ready in about 3 months and Wild Indigo and Pillipesara require 5 months to give the largest quantity of green matter. If during the growing period heavy showers are received and water stagnates Wild Indigo and Indigo commence rotting. If the crop is retained for over 3 months, Dhaincha becomes woody. Pillipesara does not stand drought and in case there is stagnation of water it also gets decayed. So all the above enumerated green manure plants have their own limitations. However in the case of *Sesbania speciosa* it is seen that it stands drought and gets stunted in growth for want of water. But it seldom perishes. It struggles in a stunted state during the droughty period and as soon as favourable conditions for growth become available it revives rapidly. Unlike other plants this plant thrives in water-logged condition also. Further under favourable conditions of plant growth it is ready for incorporation as manure in about 2 months period when about 10 thousand pounds of green matter per acre is obtained from this plant. If sown thick using a high seed rate of 60—90 lbs per acre the plants grow thin and remain soft even after five months of sowing. So, as a green manure plant, *Sesbania*

*speciosa* is unrivalled. Even though this was one of the plants known in the Madras State as a green manure plant for a long time, it was not till 1952 that the Agricultural Department took vigorous steps to popularise it.

The drive for *Sesbania speciosa* planting on a large scale on the field borders was started in Tanjore District in 1952. At that time only a handful of seeds was available. The Research Stations at Pattukkottai and Aduthurai planted *Sesbania* along the field borders at the time of planting Kuruvai variety of paddy, that is in July with a spacing of 4 inches between plants. The seeds were sown in a nursery along side of paddy nurseries. The *Sesbania* seedlings were pulled out at the time of transplanting paddy and planted on the borders of the fields. Generally 4 oz. of seeds are enough for border planting around an acre. The border crop gives about 1,500 to 2,000 lbs. of green leaves at the time of the harvest of the short-term paddy crop of Kuruvai. The bulk of the green leaves was ploughed in for the second crop of paddy, leaving behind *Sesbania* plants standing one foot apart for producing seeds only and the remaining plants in the inter-spaces were pulled out and trampled in as green manure in second crop, that is 2/3rd of the border crop was used for green manure and 1/3rd left standing for production of seeds. These plants still standing yielded seed in January and this seed was sown for raising a pure crop of *Sesbania* in February in single crop lands for use as green manure in July. A seed rate of 60 lbs. was used for this purpose and it gave about 50,000 lbs. of green leaves per acre. This crop gave enough green matter for 10 acres.

Batches of enthusiastic Farmers were taken to the Research Stations to see this crop. During the Farmers' Day Celebrations in both the Farms all the Farmers in the district were invited to see for themselves the vast potentialities of *Sesbania* as green manure both as a pure crop and a border planted crop. A healthy custom was set up whereby most farmers visited the Research Stations often and gathered in very large numbers during the Farmers' day celebrations when the Minister for Agriculture, Director of Agriculture, the Collector of the District and interested visitors from other Districts came to attend the Farmers' Day by special invitations by the Director of Agriculture. Every Officer of the Department down to the last ranks brought farmers from his jurisdiction to visit the farm and to attend the functions.