# REPORT ON THE WORK OF THE SIRVEL AGRICULTURAL STATION

FOR-1914-1915

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1914-15

BY

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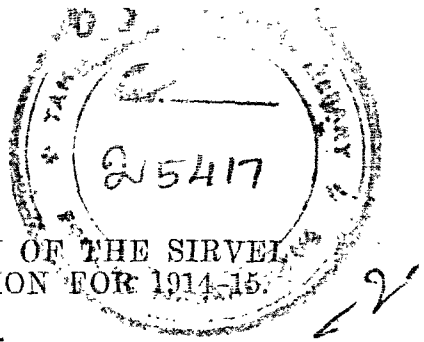

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The farm is situated in the village of its own name which is 12 miles south-east of the Nandyal Railway station. It is opened in connection with the Velgode project and consists of three blocks (dry land blocks Nos. I and II and wet land block) two of which are situated on either side of the Sirvel-Allagadda road, about half a mile south of the Sirvel village proper end the third lies close to the Nandyal-Allagadda road, midway between Govindapalli and Sirvel.

*Dry land blocks Nos. I and II.*—These blocks are irrigable under the Kurnool-Cuddapah canal and consist chiefly of poor soils. The latter (dry land block No. II) corresponds more closely to the poor red soils of the Velgode project area than the former and the main problem here is to experiment and find out how to convert the dry irrigable area into wet land as quickly and as cheaply as possible.

*Wet land block.*—This corresponds to land in the project area under tanks. The supply of cattle manure in the project area is insufficient and the problem in this block is to solve by means of experiments what variety or varieties of green manure crops can be successfully introduced to take the place of the insufficient cattle manure. Indigo, Wild Indigo, Sunn hemp, Sesbania, Cowpea and Teegapesalu will all be tried both before and after the paddy crop as circumstances permit.

*Season.*—The season on the whole was not favourable. Rains were received late in July. They were continuous and heavy during August and September and caused the Kurnool-Cuddapah canal to breach. A long drought followed which prevailed from October to March. In consequence all the crops on the farm failed. Rainfall statement could not be prepared as the rain guage was fitted on the farm in September last.

During the year under report which is the first in the history of this farm no experimental work of any kind was done. Since it was not known what the soils were like, general crops like paddy (*Oryza Sativa*) Korra (*Setaria Italica*) and Arika (*Paspalum Scrobiculatum*) were grown to test the initial fertility of the soils of the farm. All these crops failed owing to adverse conditions. Korra mixed with Daincha was sown in right time towards the end of August and at the beginning of September in dry land block No. I but owing to heavy rains in September and the continuous drought which prevailed during the months of October, November and December the crop failed to give any good results. In dry land block No. II Arika (*Paspalum Scrobiculatum*) was drilled with the first rains in July. Germination was satisfactory but the crop failed to give any results owing to the poor nature of the soil. In the wet-land portion Sunn hemp (*Crotalaria Juncea*) was sown between the 14th and 22nd of July and the crop grew luxuriantly to a height of 4 to 5 feet and the quantity of

green manure obtained when cut and ploughed in for paddy in September was about 11,500 lbs. per acre. Sannavari paddy seedlings were raised in August and transplanted in September after the green manure crop had been ploughed in. The seedlings had established themselves very fairly and had begun to tiller but owing to the breach in the Kurnool-Cuddapah canal from October the crop withered and died.

An account of the local agriculture of the neighbourhood of the Sirvel Agricultural station and of the tract proposed to be under the Velgode project is printed as an appendix to this report.

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BEZWADA,
*13th June 1915.*





## APPENDIX.

### AN ACCOUNT OF THE LOCAL AGRICULTURE OF THE NEIGHBOURHOOD OF THE SIRVEL AGRICULTURAL STATION AND OF THE TRACT PROPOSED TO BE UNDER THE VELGODE PROJECT.

The Sirvel agricultural station lies close to the western foot-hills of the Nallamallais and is 12 miles south-east of the Nandyal railway station. The tract represented by the Velgode project runs from north to south along the borders of the Nallamallais and chiefly consists of poor red soils. The whole tract is purely dry save some portions here and there under the protection of tanks where generally paddy is cultivated. Recently *Cambodia cotton* and *Ground-nut* cultivation have been introduced in limited areas. Most of the lands in this tract are irrigable under the project in contemplation and the problem of the Sirvel agricultural station, will *therefore be to study how to convert this irrigable* area into wet as quickly and as cheaply as possible.

*Rainfall.*—There are no records to show the amount of rainfall for this tract but taking the records at *Allagadda it may be said that the* total quantity for this tract will be about 25 inches which is 5 inches less than the average rainfall of the Nandyal agricultural station. Most of this precipitation falls between June and September.

*Seasons.*—Sometimes a few showers fall in March-April with the aid of which, fields which will be under paddy, korra and cotton are ploughed with the country plough and left exposed during the hot weather. The *south-west monsoon* bursts in June and dies away at the end of September. With the first rains received in June gorru is generally passed over the greater portion of the dry lands and arika sown. In July paddy is drilled. *Towards the end of August and at the beginning of* September korra and cotton are put in. Lastly jonna is sown towards the close of September or early at the beginning of October. At Sirvel owing to facilities *offered by the canal irrigation some more additional* crops are sown. Finer varieties of paddy are broadcasted in puddle in the month of August. Remunerative crops such as chillies, turmeric and onions are put in between July and August.

Light rains are received in October-November. Those that fall in October are considered very good for crops. The harvesting season begins in November and continues till the close of March. All the cereals are harvested before February, while the pickings of cotton and occasionally those of chillies continue till the end of March. April and May are generally the driest parts of the year, when the ryot is compelled to sit at home.

*Implements.*—The agricultural implements are simple, cheap and efficient. Generally speaking, they are only four in number, the plough, the gorru, *the guntaka and the metla-guntaka. The plough is used for* summer tilling and for the preparatory cultivation for paddy, korra-cotton, turmeric and chillies. The gorru or the seed drill, usually three or six tyned, plays an important part in almost *all sowings. It is also used in the* preparatory cultivation of all crops. The guntika or the scraper serves the purpose of a weeder. It is used for breaking clods, covering seed and finally for breaking the surface crust a few days after sowings are over to

facilitate germination. The metlagantika is nothing but a modified form of Danthulu and is always used for interculturing the crops between rows.

*Crops and Rotations.*—The chief crops of the tract under the Velgode project are paddy under the tanks-the varieties being budama and mundlavari, arika, korra and cotton, and a few pulses, which are, occasionally sown mixed with any of the above mentioned crops. At Sirvel, however, the case is different. Being a village where abundance of water can be had at low depths and where a portion of the ayakat is commanded by the canal irrigation paddy is grown to a greater extent. Important crops like chillies, turmeric and onions are grown in addition. Finally it is a place of gardens where mangoes, citrus fruits (oranges and lemons) and guavas are grown.

In the tract under the Velgode project arika is the chief staple food of the people, whereas at Sirvel jonna takes its place, and arika comes second in importance. Excluding Sirvel the main rotation of the tract under consideration is arika for one year and mixed korra and cotton for another year. Whereas in lands protected by tanks paddy invariably follows paddy. Pure crops of cotton, korra, castor, red-gram and horse-gram are rare and can safely be neglected. It is not uncommon to find either red-gram or castor mixed with arika. If castor is mixed it is generally sown in the sixth row by means of akkadi. At Sirvel for instance the rotations are different and more varied. In lands commanded by the canal irrigation drilled paddy is generally followed by black-gram. Chillies, turmeric and onions are generally put in once in three or four years. This is not a general rotation of the village but is followed by well-to-do ryots who can command labour and manure. In some of the irrigable areas for want of facilities for irrigation every year, paddy is grown once in two or three years, the crops of the intervening years being either korra or arika which are purely rainfed. On dry lands the chief rotation is jonna for one year and mixed horse-gram, cotton for another.

*Manures.*—Cattle manure is the only manure available and the only one used both in the tract above mentioned and at Sirvel. Its collection is primitive in character; close to the ryots' houses and outside the village sites several pits are seen where all sorts of rubbish and cattle dung are dumped in alternate layers. Sometimes heaps of manure are found by the side of roads close to villages. These are generally kept by poor women and children who collect the cattle dung from the roads and mix it with trash for sale to the ryots. These manure pits and heaps are invariably exposed both to sun and rain. Even well-to-do ryots who keep their cattle close to their houses do not care to preserve the manure in the right way. For want of sufficient heads of cattle, the quantity of manure is very very insufficient. Only paddy fields receive manure and even for these the ryots are not able to give more than five cart-loads per acre. Generally speaking dry lands receive no manure at all. This is not however a rigid ruling. If any surplus manure is available some dry lands are manured once in four or five years. At Sirvel the cattle manure collected goes to fruit gardens, paddy fields, turmeric, chillies and onions. Very little can be spared for the dry [illegible] well-to-do ryots alone will be able to spare some quantity of manure [illegible]. In addition to the cattle manure, penning sheep in limited quantities is common both to Sirvel and to the tract under the project. Padu-earth (pedda) or patimannu is available to some extent at Sirvel and is applied to fields where Cambodia cotton and chillies are grown.

BEZWADA,
*22nd April* 1915.

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