

fully whatever share of the burden may fall to his lot. Hence the expression of our determined resolve is a grim and solemn act.

I will only ask now that those of you who wish to do so will come with me into the quadrangle and give three cheers for 'THE FLAG THAT MUST PREVAIL.'

The assembly headed by the Director moved out in all solemnity suited to the occasion, and responded to the call heartily.

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### **Wilted shoots on Neem trees (Margosa, *Melia azadirachta*.)**

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Visitors to Coimbatore during the months of January and February would not have failed to notice that many of the neem trees assume a rather distressful aspect, by reason of the presence of large numbers of dead and wilting twigs. The leaves of such twigs droop down unnaturally, wither into an abnormal yellow brown colour and ultimately drop off, leaving but the bare dried and shrivelled shoots. In very bad cases almost all the twigs may wilt away in this manner, causing the trees to look as if they had been struck dead by lightning. In spite of this dismal appearance, the trees seem to recover completely in a short time; shedding the dead leaves as usual in March they put forth new shoots, burst into abundant blossoms and assume an altogether gay appearance.

The wilted twigs are generally of a yellow brown colour, with several large dark patches to which are usually found attached small lumps of gum that had oozed out from fissures in the dead bark.

In previous years, attempts at the investigation of this attack having been made at a wrong time of the year, no clue was

obtained as to the real cause of the damage and it was generally believed to be due to the insidious action of some fungus.

Recently, however an examination of affected trees made by the writer at the beginning of April '15, revealed the presence of the young ones of a bug—*Helopeltis antonii* attacking the young shoots. A thorough investigation clearly demonstrated that the wilting of twigs was unmistakably due to this bug and that this disappears by the time the twig dries up. The adult bug is a slender red-brown insect—with a remarkable resemblance to certain Ichneumon wasps. The head and the eyes and the long feelers are black, the thorax reddish orange, the wings smoky and the abdomen dark brown with a prominent greenish white patch. The curved bluish eggs are laid in the tissues of the tender shoots and hatch in about 6 days. The young ones are slender, reddish insects with rather long spiny legs and an ant-like appearance.

The bugs puncture the tender shoots with their beak and feed on the plant-sap; but while feeding they seem to inject some irritating secretion through their beak which kills the plant tissues and causes the parts around to turn brown. When punctured in a large number of places the entire shoot dries up.

Outside Coimbatore, wilted twigs on Neem trees were noticed around Dindigul and at St. Thomas Mount, but it could not be ascertained whether, in both cases, it was really due to this insect. Neem trees do not appear to suffer from this disease anywhere in the Ceded Districts.

As it would be very interesting to gather information as to the distribution of this pest, the writer of this note ventures to hope that the readers of this Journal—distributed as they are in the various parts of this Presidency—would be so good as to make observations as to the presence of similar wilting in Neem trees in their districts and give the writer information, through

the medium of this Journal, as to where and during what part of the year Neem trees show signs of such infestation.

The reader may be interested in knowing that this insect is known to attack besides the Neem tree, Mahogany and Guava, and certain wild bushes and also Tea, Cocoa and Cinchona in Ceylon. Information as to any other tree suffering similarly will also be thankfully received.

Y. Ramachandra Rao.

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### **Snake gourd cultivation in Periyar tract.**

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This vegetable is cultivated in single crop wet lands in villages round about Melur. The plot is ploughed generally thrice soon after paddy harvest, in the middle of February. Sheep are penned at 2000 per acre and the plot is again ploughed thrice during May. Two seeds are dibbled in each hole in rows 6 feet apart. There is also a system prevailing here, of raising a nursery manured with Farm Yard manure. The seedlings are transplanted after a fortnight when they are about 9" to 12" high, and this system is preferred owing to the crop being better. The distance in this case also is 6 feet apart from plant to plant. Both the nursery and the plot are irrigated the day previous to planting. The seedlings are pulled out carefully and transplanted singly in each hole, the soil having been just previously loosed with mammotti. Care is taken to keep the plot always moist and clean. About a fortnight after dibbling or planting, a mixture of ash and fowl dung in the proportion of 10 : 1 is applied to each plant, at the rate of 20 baskets per acre, each basket holding about 6 Madras measures.

Picking commences a month after transplanting or after 1½ months in the case of dibbled seeds i. e. in the middle of June. Pickings are done weekly on shandy days. Early pickings yield