

select the best season; he would know when to plough, when to weed, and how and when to gather in his crop. If, for example, an inexperienced man were given a marshy paddy-field and a stock of seed grain and asked to raise a crop of paddy, the result would be a sad failure. He would not know the time he should conduct certain operations in his land, he would lack the local experience necessary to ensure the safety of his crops from floods and droughts and from insects and cattle. If any of these precautions were neglected, the attempt would naturally result in failure. The great aim in the cultivation of a new crop or a neglected one should be to continue the attempt for three or four successive seasons, till the necessary experience is gained.

There are many other crops which could be profitably grown, if more attention is paid to them. In this paper it is not possible to give more than a mere list of some of these. Sugar-cane is a product, which, if properly cultivated, should succeed in some districts.

Ginger, Turmeric, Coriander, and Spices thrive well in our climate, but no attempt is made to raise them on a large scale. All varieties of grain would form profitable crops. As regards fibre plants no attempt on a proper scale has ever been made to prepare or raise a crop. There is Rhea, Jute, Aloes and other varieties deserving attention. Dye and tanning materials are all neglected though perhaps in their case it might be said that their production will not pay now in competition with mineral dye stuffs.

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#### SPRAYING MACHINES.

We find that we have omitted to acknowledge receipt of a catalogue issued by the firm of Strawson's Limited, the local agents for which are the Eastern Produce and Estates Company, Limited. The latter firm in sending us the catalogue directs attention to the "Antipest" machine, described as "a sprayer, improved in design and cheapened in price, to be used either with powders or liquids for removing or preventing blights, fly, insects, and fungus on growing plants economically and without injury to the plant." We note that the Eastern Produce and Estates Company introduced the spraying machine which the Assistant Government Agent of Matara used with success on infested paddy. This machine, we are informed, was not an "improved" one, and "cost nearly double the price" of the Antipest, but the report of the successful experiments at Matara is said to have effected the sale of 6 others. We do not know what success has attended the trial which the Assistant Government Agent of Kegalla is reported to have made with this machine, but we have no doubt that the results were satisfactory, provided the insecticides used were judiciously chosen and prepared of the proper strength. On this latter condition depends not only the destruction and prevention of the pests, but also the fact of the plants being directly injured or not by the insecticide.

We have not had the opportunity of inspecting an "Antipest" machine, but from a diagram given in the catalogue it would appear to be very similar to "Vermorel's Eclair Knapsack Spraying Pump" which we have already described in the

pages of the Magazine. This latter has been used with success for some time at the School of Agriculture; in the case of sucking insects, charged with kerosine emulsion, and for biting insects with solutions of Paris green or London Purple. The machine imported for the School was bought of Messrs. Clark & Co., 20, Great St. Helens, London, E.C., and cost 35 shillings in England. We do not quite see the adaptability of a machine like the "Antipest" (also costing 35 shillings in London) for distributing insecticides in the form of powders; but, as we have said, we have had no opportunity of giving the "improved" sprayer a trial, and are therefore unacquainted with the improvements which are claimed for it.

In the last Journal of the Royal Agricultural Society of England we find a report on the trials of Spraying machines at Cambridge. Among the "knapsack" machines entered for trial, were the "Antipest" (£1 15s.), the "Notus" (£1 8s.), the "Coronetta" (£1 10s.), and the "Fruit sprayer" (£5) all from Strawson's Limited. The report referring to these sprayers, remarks that some of these "most useful machines" are well suited for distributing liquids and powders. The "Antipest" is described as "a good instrument, modelled on the lines of the continental knapsack machines."

We note that "Shawson's Limited" are also prepared to supply insecticides such as *Bouillie Bordelaise*, kerosine emulsion, quassia, tobacco juice, hellebore, Paris green, &c., but there should be no difficulty in preparing or locally purchasing most of these.

For powdered insecticides we have been using the "Soufflet" or bellows which is a cheap and handy instrument, costing only 3s. each in England.

We would in conclusion express our gratification that we have a local firm prepared to supply sprayers and insecticides at moderate cost, for we consider that it is of the greatest importance that convenient methods of checking or exterminating insect and fungoid pests should be brought to the notice of, and adopted by, the cultivating classes in Ceylon.

#### DYSTOKIA IN A COW AND EMBRYOTOMY.

On October 25th a Sind cow belonging to the Government Dairy was reported to be suffering from dystokia. The cow was a well-formed healthy one and imported to the Island early in January. At the time of landing she was believed to have been in calf for four or five months. However, she never showed any signs of labour pains till the 24th of October, i.e., nearly ten months after landing. Taking for granted that the cow was at least 3 months in calf before it was purchased, the period of gestation is shewn to have been over thirteen months in this case.

On the 25th the water bag was ruptured and two limbs were presenting. On exploration per-vagina it was found that the limbs presenting were the hind ones with the hocks bent in. It was a case of breech presentation. The lower jaw was secured with a cord but the fore limbs were so bent down and the size of the foetus was so great that the fore limbs could not be reached. After unsuccessful attempts