# On the Land

## GENERAL.

Have you ever taken the pains occasionally to note whether or not your separator is being turned to the speed required in the catalogue? Hold your watch on the person turning the crank once a week or so, says *Better Farming*. The crank of the separator can easily be turned one or two revolutions too fast per minute, and it is just as easy to lose considerable butter fat by the slacking speed. The necessary one or two turns per minute will result in the bowl running 700 or 700 revolutions too slow. This is a little thing, but it may save the fat of one cow.

You cannot afford to waste fat after you have gone to the trouble of producing it. A recently invented device for obtaining the speed at which cream separators are operated is now on the market. The instrument is in the nature of a speedometer by which the operator of the separator is always kept informed of the number of revolutions at which the machine is being run. This provides 100 per cent. efficient operation, or, in other words, tells the operator exactly the number of revolutions per minute that the maker provided for in its manufacture, as it gives an unfailingly accurate check on the number of revolutions per minute.

That there are many farmers operating cream separators who could profitably use such an instrument is shown in tests recently conducted by the experiment station of Purdue University. In one test it was shown that through the incorrect operation of the cream separator a dairyman owning twenty cows lost 554.10 dollars in one year because 'he guessed at the speed of his cream separator.' Any dairyman who owns an average dairy will lose a large per cent. of what his profits should be in a year when he operates his separator without an accurate check on the speed.

#### NEW POTATO DISEASE.

A new disease, silver scurf (Spondylocladium harix) has recently been introduced from Europe, and is reported spreading in eastern States of the United States of America. This disease is marked plainly by dark areas on skin of tuber, which when examined very closely may be seen spotted with fine black hairs. This fungus does not in any way produce a decay of the potato, but after the skin is killed there is a rapid loss of moisture, and the tubers shrivel and take on a silvery appearance, greatly lessening market value. The information is culled from the Panama Morning Journal, and is sent by a New Zealander as a warning to those interested in preventing its introduction to New Zealand.

# BOTS: THEIR NATURAL POWERS OF RESIST-ANCE.

A short time ago I received, through Mr. Hubbard, Inspector of Stock, Masterton (writes Mr. H. A. Reid, F.R.C.V.S., D.V.H., F.R.S.E., in the Journal of Agriculture) two specimens of bots taken from the nasal cavities of a sheep. These had been brought by a farmer to the local office of the Department for identification. They proved on examination to be larvae of the sheep-fly (Estrus ovis). The parasites had been placed by Mr. Hubbard at about noon on the 22nd November in a glass-stoppered bottle containing 2 per cent. formalin solution. On receiving the bottle at the laboratory two days later I was surprised to find on removal from the solution that one of them was alive. On being held in the hand or exposed to sunlight on the laboratory bench it slowly extended itself, and then commenced to move quickly away. The remaining bot was dead. In order to ascertain how long these creatures could support life in such an intolerable medium, I replaced the live bot in

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the formalin solution, removing it each day to see whether it showed any signs of life. The warmth of the hand or sunlight seemed to have a revivying effect, for up till November 28, or the seventh day after complete immersion in the solution, it still remained alive. The natural powers of resistance of such lowly forms are enormous, and it may well be contended even in this case that the parasite finally succumbed from prolonged exposure to an unsuitable environment rather than to the poisonous effects of the formalin. This observation serves to illustrate how ineffectual is the administration of drugs designed to destroy these parasites during the life of their host, and should cause farmers to pause before employing any of the quack remedies which are advertised from time to time as cures for bots.

### BITTER-PIT.

The recent report from Britain as to the relation of weather-conditions to bitter-pit has been borne out by an experience at the Weraroa Experimental Farm. The Home report in question stated that when a cold season was experienced in the north of England bitter-pit was practically non-existent, but in the same season the summer was exceptionally hot in the south of England, and there bitter-pit was common. I have noticed the same thing at Weraroa, where in a cool summer bitter-pit gave no trouble, whereas in a hot season the disease was prevalent. It has been contended that the trouble is due to overpruning, and that if fruit trees be only lightly pruned or left to make a natural growth, the trouble would never be noticeable. My experience does not bear this out. The worst case of bitter-pit I have come across was with a number of apple-trees (which it was intended to replace with trees of other varieties of fruit) which were left unpruned for two years.

Pray for the poor souls, especially for those who have no one to pray for them; for those who have dropped out of this world suddenly, perhaps died in some distant forest, or have been shipwrecked at sea; or many who, unfortunately, are forgotten by their friends and the world.

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