

The Returns from the Wood-lot.

It is reliably estimated that an acre of un-pastured hardwood land will produce annual growth of between one and two cords. Valuing the standing fuel at \$3.00 per cord, this would mean 6 per cent. interest on a valuation of \$50 per acre. If the crop were suitable for lumber, the return would be much greater, and besides there is the annual increment in value per cord or thousand feet. On the above basis, supposing the land to be exempted from taxation, as we hope it may be in all localities soon, woodland is a fair investment for arable land, while for rough, broken lands it is perhaps the most profitable crop that can be grown. The returns are slow, but it is a good way to bank money.

THE DAIRY.

Testing Ayrshires for Advanced Registration.

Editor "The Farmer's Advocate":

In reply to your communication, I may say we have ten cows (Ayrshires) entered for the Advanced Registry. Several of them have been on record since about the beginning of April, 1906. The test is conducted by weighing each cow's milk night and morning, as taken from the cow. A spring scale, bought for the purpose, hangs in a window behind the cows. When you are through milking a cow you simply place your pail upon the scale, which tells you at a glance how many pounds of milk you have. The weight is then marked on a slate beside the scale. After milking is all done the weight of each cow's milk is transferred to entry papers supplied by the Live-stock Branch of the Dominion Department of Agriculture. The Dominion official calls on you at least four times a year. He stays two days, sees the cows milked, takes samples and weight, and tests each cow's milk. We also have a man employed to take samples and test each cow every month during the year. Some time ago it occurred to us that there was a great injustice being done to the breed by the sale of inferior bulls; also cows palmed off on unwary buyers because they could be bought cheap, when they should have gone to the butcher. Hence the idea of advanced registration, as the man who wants a good dairy bull will know where to get him and pay reasonably for him, because he knows what he is getting.

We have not the full weights made out yet, but according to our last computation several of them must be nearing the 8,500 pounds mark. Last year they ran from 8,000 to 10,800. Below are the tests of the different cows at the last testing: Scottie, 4.2; Jessie Blois Stewart, 6.2; Barbara Allen, 5.2; Scotch Lassie Jean 2nd, 4.; Brownie of Menie, 6.8; Brownie of Menie 2nd, 6.8; Lady Colborne, 4.; Moss Rose, 6.8; Bessie of Warkworth, 4.6; White Rose, 5.6; Scotch Lassie Jean 3rd, 3.80. Mixed sample of whole herd, 4.40.

As far as our experience goes, we are perfectly satisfied with the present system of testing and Advanced Registration. With more experience of the matter we shall be better able to dictate.

WM. STEWART & SON
Northumberland Co., Ont.

Testing Strength of Acid.

Prof. E. H. Farrington writes in Hoard's Dairyman: A fairly accurate method of estimating the specific gravity of the acid used in testing milk is to weigh a given quantity of it. I presume you have a scale for weighing cream for testing, and that this is fairly sensitive. You can test the specific gravity of the acid with these scales by weighing an exact measured quantity of the acid and comparing this weight with the same exact quantity of water, then dividing the weight of the acid by the weight of the same quantity of water, and the quotient will be the specific gravity of the acid.

A very good way to determine whether or not your acid is of the proper strength is to notice the color of the fat separated in the test bottles when the acid is used for testing in the usual way. If the fat is light-colored and contains some white specks in it, the acid is too weak. If the fat is dark and contains black specks, the acid is too strong. Unless you have repeated indications of defective acid by these tests, I would not attempt to change its specific gravity, as the way in which the acid acts is a sufficient indication of its usefulness in testing.

It has been decided to reinstitute milking tests for cows at the Highland and Agricultural Society show next July, the object being to judge the Ayrshire on utilitarian lines.

Perils of the Butter Business.

Editor "The Farmer's Advocate":

The season of 1906 has been a very satisfactory one to the dairy farmer, so far as prices are concerned. Butter prices have not been as high for a number of years, but the production per cow was not so high as last year.

The western portion of Ontario, especially, suffered from drouth during July and August, which, coupled with the extreme heat and the tormenting flies all over the country, caused a heavy falling off in the milk supply during the latter half of July and August, and there was not only a falling off in quantity, but in the quality of the milk also, as there was not so much fat in the milk as there was during the same period in 1905. It is many years since the cows suffered as much discomfort as they did during the past season, and but few farmers realize the effect such discomfort has upon the milk supply. The only way to counteract this is to have a soiling crop and keep the cows in during the day. This, however, entails extra labor, and farm help being so scarce in most localities, but few farmers will take the trouble to soil their cows in the stable unless they are making a special business of dairying. The increase in prices during the last three or four months over 1905 will more than offset the decreased production of milk, and the dairy farmer will look back over the season of 1906 as a very satisfactory one from a financial point of view. The increase in prices has not, however, been due to an increased demand from Great Britain for Canadian butter, as recent advices go to show that the demand for Canadian butter has not been brisk of late. There has been a scarcity of the better grades of butter on our own markets for some months, which has had the effect of forcing prices up, and the poorer grades always follow in sympathy.

A large amount of blended dairy butter is now being shipped to the British market in creamery boxes which is usually of poor grade, and which, if properly branded, might not injure Canadian creamery; but where no brand is displayed it is apt to work injury to regular Canadian creamery butter, which does not need anything to detract from its merits, as there is no doubt that our Canadian creamery butter does not hold the place it once did on account of so much gathered-cream butter going onto the British market. Siberian butter is becoming a formidable competitor of our butter on the British market, and the supplies from that quarter are largely on the increase. During the month of October alone no less than 5,000,000 pounds were received in Great Britain from Siberia, and, while the quality is not quite equal to ours, it is favorably looked upon by the British grocer on account of its extreme dryness, which quality the grocer likes when cutting the butter upon his counter.

Complaints still come about the quality of our boxes and the linings used, a good many of our boxes being too light and badly made. A very bad fault is often found in the covers being too large, say, one-eighth of an inch all round. When handling such boxes and dropping them close to the others, this projection is very apt to catch on the box next to it, and the cover is very liable to be split. Manufacturers are apt to make their covers large, as it gives the fasteners a little more timber to support them; but it is a mistake, and the attention of the maker of such boxes should be drawn to this defect. The paper linings are usually too light, which do not sufficiently protect the butter. Dealers are often responsible for this, as they quote prices by the thousand, regardless of quality. One half of the linings should be 13 inches wide, which allows one-half an inch to go around each corner, thus insuring a tighter corner. The part of the paper which laps over the top should be cut the proper width, by taking a half inch off each side; otherwise, it looks very unsightly to see a paper too wide, just jammed in in any shape on top of the butter. The cutting can be quickly done by having a templet made out of a piece of thin board the proper size, and laying it on a half-dozen sheets and cutting them all at once, one end at a time. A couple of spring clothespins are a good thing to hold the paper together while cutting it. It is often difficult to get paper 13 inches wide unless specially ordered, but it is very necessary to insure a tight corner, for it is at the corners where the greatest precaution is needed, as the boxes are seldom made airtight in the joints.

The keeping quality in butter is what we must look after in that which is made for export, and keeping quality can only be secured by the utmost care from the cow to the finished article. There is no question but that the creamery which is operated on the factory-separator system has a decided advantage in this respect over the cream-gathering system, as the maker has a much better control over his cream where he takes it from the milk himself while it is practically fresh and sweet. The farmers of the country, however, control the situation, and they have emphatically pronounced in many localities in favor of hand separators and sending only the cream to the

creamery, and if our butter suffers in consequence, on them falls the loss, and loss there undoubtedly is; but as the old adage runs, "What the eye does not see the heart does not grieve for."

Ideal conditions, however, are not reached even in separator creameries, for patrons who are careless with their cream are also careless with their milk, and the only difference is that the milk is taken out of their hands every day during the summer season, and has not the same chance of contamination. On the other hand, the sooner the cream is taken out of such milk, the better; and when it is separated immediately after milking the greater part of the filth is left in the slime of the separator bowl. The separator itself is undoubtedly a prolific source of contamination to cream when in the hands of a careless person, and the practice of cleaning it only once a day cannot be too strongly condemned, especially where the separator is kept in the stable atmosphere. Stable odors are the worst that we have to contend with in the winter season, and in the case of gathered cream the trouble is aggravated by holding the cream too long before gathering and churning. This will also apply to milk if delivered to the creamery only once or twice a week. Those accustomed to handling milk in the winter season well know the disagreeable and sickening odor of old milk which has been kept cold enough for days to prevent souring and kept above freezing by adding the warm new milk at each milking.

In the poorer grades of our winter dairy butter that odor is always present, as it will develop in cream just as readily as in milk if it is held long enough, and as many farms get only a small amount of milk during the winter months, churning is often delayed until the first gathering of cream is ten days old or more. Cellars are usually cold enough in winter to prevent souring, and preventing cream too long from souring is a mistake, as it will be sure to develop a very undesirable and bitter flavor. It is better to add a cup of good sour milk or cream to the first lot of cream and let it gradually sour, if it is to be churned at home.

J. STONEHOUSE.
Ontario Co., Ont.

Dairying in Wisconsin, Iowa and Oregon.

The amount of butter manufactured in Wisconsin creameries has increased 60 per cent. in the last five years, the figures being 55,000,000 lbs. in 1900, and 88,500,000 in 1905. In the same time the output of dairy butter has increased from 25,000,000 to 34,500,000 pounds. The creamery product is thus outstripping the dairy make.

In Iowa, the dairy commissioner's report shows that the make of butter in the past season increased ten per cent. over the year before, totaling 91,202,354 pounds, notwithstanding that over 350 creameries have been closed up within the last four years. Iowa dairymen have found that economy of manufacture demands a make of more than 150,000 pounds per creamery, and the average production has increased from 97,000 pounds in 1903 to 118,000 in 1905. Wages of buttermakers have increased \$225 per year in the past five years.

The State of Oregon made about \$28,000,000 worth of butter in 1905, and the output is optimistically estimated to be 40 per cent. better in 1906. The creameries made 7,000,000 pounds of butter, and about 3,000,000 pounds were produced on farms.

POULTRY.

Successful Incubation in March.

Editor "The Farmer's Advocate":

Perhaps an account of my farm poultry may interest some of your readers. I remember hearing, when very young, that March chicks were the great thing to have, so resolved to have some this year, if possible. My small flock of 48 pure-bred Barred Plymouth Rocks were laying a good number of eggs all winter, and on the 1st of March I set my incubator. On the 15th of March I had 77 nice strong little chicks. I placed my brooder in an unused south bedroom, close to a south window. I covered the brooder floor with fine sand, and warmed it and moved my chickens in. At the same time I found I had two hens that were just thinking of sitting, so I brought them in and put them in baskets near the brooder, and kept them closely covered. One soon settled down quietly, and at night I put a chick under her. In a few days I found I could keep her in the brooder with all the chicks in the day time. At about 10 I put her back in the basket with a few others. I find it is a great mistake to keep a hen too warm. From the first I did not have the brooder lamp going all night, but in the afternoon, and after the brooder was in the morning, and kept a light on it all night. I found it out about ten days later, and it was a short time in