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The accompanying table gives an idea of the amount of concentrates steers of a given weight will consume and of the gains made on that ration. It also shows that grain can be fed at a profit to cattle on grass. In the pasturing sections of Old Ontario the pastures are seldom supplemented by grain. Some do grain their cattle, but figures or statements have not been obtained to show what advantage accrued from so doing. In certain parts of Western Ontario large numbers of cattle are finished on grass every summer. In many cases the pasture consists of blue grass, which certainly gives good results. It appears to have the substance and body for making large gains with the right quality of cattle. The gains depend on the quality of cattle as well as on the ration. Some cattle do much better than others in the feed lot, due to a difference in breeding, build, conformation and quality. The experienced stockman can pick the stocker that will make good use of the feed given, whether on grass or in the stable. Feeding qualities are usually depicted in the head of an animal. To make profitable gains the animal must have capacity, rugged constitution and the right type and conformation.

Growing and Finishing Hogs on Shorts and Skim-Milk.

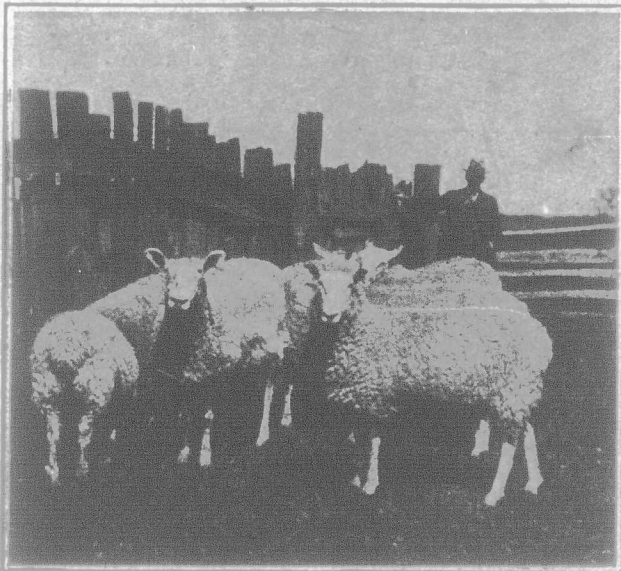
Can pigs two months old, purchased at from eight to ten dollars apiece, be fed and marketed at a profit when all the feed, outside of the milk, has to be purchased on the market, with shorts around forty dollars a ton and hogs selling at from seventeen to nineteen cents per pound? Some claim that a man would about break even on the proposition; others say that he would be paid a fair wage for his labor but Seegmiller Bros., of Waterloo County, know that it can be done at a substantial profit because they have done it. In the fall of 1917 they purchased one hundred young pigs and fed them entirely on shorts and skim-milk. These pigs were disposed of when between six and seven months of age, and when the feed bill was paid there was left a trifle over \$1,500 to pay for labor and skim-milk. Some of these pigs averaged well over the 200-lb. mark at five and a half months of age. The system of feeding was as follows: The shorts were fed dry in the trough and then a little water was poured over them; after this was partly consumed skim-milk was placed in the trough. The pigs had a fair supply of skim-milk as the dairy herd owned by Seegmiller Bros. consists of sixty Jersey cows. The pigs had what milk was left after the calves were fed. In this case it is rather difficult to put a value on the skim-milk, but undoubtedly it had considerable value and tended to make economical gains on the rations given.

The pigs were housed in an elaborate pen, 130 feet long and 34 feet wide, with a ceiling 9 feet high. Two-thirds of the top four feet of each side of the pen is glass which furnishes abundance of light for the piggery. The bottom five feet of the wall is of cement and the top part, other than the windows, is of single-ply lumber. The pen has a tight-board ceiling with a loft above of sufficient size to hold seventy-five loads of straw. Ventilators run up from the floor to the roof of the building. This gives fair ventilation but the owners contemplate covering part of the space now occupied by glass with cotton, as they believe this will furnish ideal conditions in their piggery. There are fourteen pens on each side with a wide passageway down the centre. The piggery is sufficiently large to accommodate over two hundred feeding pigs. Seegmiller Bros. prefer the York-Tamworth cross for feeding purposes. They are planning on keeping twenty-five brood sows and having two hundred pigs on pasture next summer.

Hogs and dairy cows is the combination which has put Seegmiller Bros. on their feet. Nine years ago they had \$1,000 and a whole lot of energy and ambition. They started with a hundred acres heavily mortgaged. This has been added to until at the present time the farm consists of 342 acres with a herd of over a hundred Jersey cattle and implements and equipment of every description necessary on an up-to-date farm. At each end of the barn is a large concrete silo, and sufficient corn is grown to supply feed for the cows practically the year around. Hydro lights the house and barn and furnishes power for driving machinery. Milking is done by machine and the cream is pasteurized and shipped to Toronto. Machinery for doing this work cost a considerable penny, but the extra price which they obtain for the cream above that for unpasteurized cream paid for the equipment in a short time.

Undoubtedly others have had the opportunity which has come to these men but they have failed to take the risk which was involved in putting up buildings, stocking heavily and putting in expensive equipment. There is an old saying "Never venture, never win," and there is a good deal of truth in it. Of course, success depends to a large degree on venturing at the right time. The Seegmiller Bros. claim that with a supply of skim-milk, hogs can be fed at a profit. They have also proven

that shorts, even of the quality now procurable, will grow and finish pigs when fed along with milk. Success in getting economical and profitable gains depends a good deal on the start given the young pigs. Care must be exercised to neither overfeed nor under-feed. This necessitates keeping a close watch on the pig trough to see that you are always feeding within the pig's appetite. Failure to observe this point has in more than one case resulted in impairing the pig's digestion and thus making him unthrifty and a doubtful proposition so far as profitable gains are concerned.



Some Leicesters which May be Seen at the Fairs this Fall.

THE FARM.

Topping Tobacco.

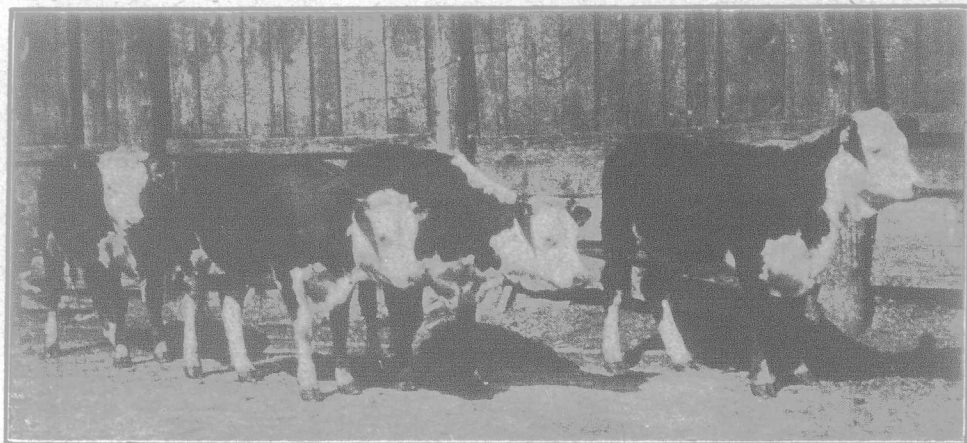
The object of topping is to prevent the formation of flowers and seed, and to direct all growing energy of the plant into the remaining leaves.

The work may be done as soon as the terminal bud is clearly formed and the best results are obtained by topping before the bud has opened. Care must be taken not to bruise the leaves left on the plant.

The time to top varies with the kind of tobacco grown. With some early varieties, planted during the first half of June, the topping may be done from July 25 to Aug. 10, that is, from five to six weeks after planting out. For the larger varieties of slower growth, one may wait a week longer. In all cases the topping should be done as soon as possible.

Experience will tell the grower how many leaves he should let remain on the plant. Its vigor and development at time of topping are generally good guides.

For cigar tobacco, top leaves of less than 12 inches should be avoided; for pipe tobaccos (such as the Big Connecticut and Burley) the larger the leaf the more valuable it is. With the yellow, flue-cured tobaccos, the



A Few Promising Baby Beeves.

importance of early topping is still greater, the main object being to have all the leaves ripen at almost the same time. Early topping ensures upper leaves of a maximum size.

The time of topping controls, in large measure, the time of harvest. The earlier the topping the sooner will the upper leaves reach full development and commence to ripen.

The best method is first to top all plants which have reached the desired degree of development. Eight or ten days later, go over the plantation again and complete the operation by topping all remaining plants whatever their stage of development. One is often obliged to reduce considerably the number of leaves left on late developing plants, but it is better to get fewer leaves of fair size than a greater number but too small to be used to advantage.—Experimental Farms Note.

Our Scottish Letter.

At the moment, perhaps, the question chiefly agitating the agricultural world is the labor problem. In obedience to the country's call an immense advance has been made in arable farming. Briefly expressed, it stands thus: before the War this country imported 40 weeks' supply of its foodstuffs and grew 12 weeks' supply. The position to-day is, that given a reasonably good harvest we are growing 40 weeks' supply and will need only to import supply for 12 weeks. The enormous addition to the potato area in 1917 has been still further augmented this year, and yet the economic condition is such that while the potato subsidy was estimated to cost the country £5,000,000, Mr. Clynes, M.P., was able to inform the House of Commons this week that £1,500,000 will meet the bill. It was well worth giving the guarantee. Farmers responded gallantly; the demand for the big crop grown and garnered has recouped them within the controlled limits, and the issue is gratifying to all. But the military situation at the moment is grave. The National Service authorities have called upon Scottish agriculture, before 11th June, to supply 5,500 men under 31 years of age and in Medical Grade 1, to the army, and the "comb-out" is being rigorously applied—so rigorously that on one farm in Perthshire seven pairs of horses were this week standing idle, and in Kintyre, on four days' notice, a batch of men, some of whom cannot be replaced, had to report themselves at Stirling for military service. These typical illustrations show how grave the situation is. Farmers and stock-breeders say—we have done our best to increase cultivation and there is prospect of a great harvest, but crops have to be cleaned before being harvested, and if the men are to be taken who are most fit, how is the work to be done? The food that is being grown cannot be garnered unless we are supplied with labor. Meetings have been held this week in Glasgow and Edinburgh, and at Dundee and Campbelltown, at which the agricultural situation was discussed. Everyone desires to win the War, and no one desires to handicap those who have the national defences to consider, but the problem of labor is acute, and unless a great land army of women can be organized it is difficult to see what is to be the upshot.

All crops with the exception of roots and oats on old lea, are looking remarkably well. In fact, the universal opinion is that, taking the country all round, we never had more favorable crop prospects. In May moisture came abundantly, followed by almost tropical heat. Grass came away rapidly, and potatoes could not possibly have had weather that suited them better. While I write (June 7) in many districts roots, that is Swedes and turnips, have had to be sown and re-sown. Since June opened there has been rather a lack of moisture, and in consequence the braird has not come away. During April the wire-worm or grub did damage in destroying the seeds of the oat crop on old lea. The rains of May brought away the hay crop, and indeed were it not for the unpleasant situation as regards labor, the agricultural outlook would be re-assuring to a degree.

Lambing has given very good results, and the question now agitating the minds of many is what arrangements are contemplated in connection with the marketing of lambs. Sales begin in the third week of July and go on almost weekly until the end of August. Many are concerned to know the intentions of the Ministry of Food which must take the long view, and at the moment no hint has been given as to probabilities.

It is one indication of the quickened state of agriculture that widespread attention is being given to the question of diseases in farm stock. In the sheep world the great difficulty is a disease known as Braxy or Louping-ill. The problem as to the identity of the diseases so named has not been solved. Whether they are one disease or two is one of the first points to be settled. The term "Braxy" is applied to the disorder in the West and Northwest of Scotland, and the term "Louping-ill" to the disease as it appears in the South-east of the country. The Glasgow Veterinary College is boldly attacking the problem, and under the guidance of Professor Gaiger, who has been recently appointed to the chair of Bacteriology, something substantial may be effected. Unhappily all such research work in Scotland has hitherto been crippled through lack of funds, and another unhappy feature is a disposition to petty jealousy on the part of those engaged in physiological research. In place of an honorable striving to see who can do most to minimize loss and enhance the value of live stock through the discovery of the causes of and the remedy for such plagues, there is a disposition to act the part of censors on each other. Such manifestations leave an unpleasant impression on the lay mind.

The two great menaces to the cattle world are epizootic abortion and tuberculosis. Something undoubtedly has been done to lessen the ravages of the former, and for this our Veterinary Department of the Board of Agriculture and Fisheries deserve every credit. In Sir Stewart Stockman we have a first-rate head of this Department. He has had wide experience and understands his problems well. The war against tuberculosis has, in a measure, been slackened on account of the preoccupations of this other more tremendous war, but the indications are that when something like normal conditions return the battle against this decimating disease will be resumed with vigor and with a better application than heretofore of the conditions which will ensure victory. In the equine world the investigation into the disease known as joint-navel ill proceeds quietly and with considerable hope of success. Not much is being said on the subject, but those who have the matter in hand are not slackening