

that, as the American puts it, "she milks as long as she ought to, and sometimes longer." It is the staying milker that pays, and the fall cow is the staying milker; therefore — It must be remembered, that, milking or not, the cow must be fed.

(c) *Less irregularity of feed and attention* — The fall cow is much less likely to feel the hurtful and depressing effects of the ups and downs of irregular supplies of food, of irregularity in time of milking, and general attention, than in the spring cow. And this is not unimportant. A farmer is short of green pasture, but has, possibly, plenty of corn, and yet the excess of work forbids a regular supply of the corn to the cows. For similar reasons, milking becomes a matter of convenience rather than of regularity, and these are affairs that closely affect successful herd raising. The shortage of fodder during summer constitutes the grave of many hopes of the dairyman, but not of him whose cows freshen in the autumn. We see little hope of increasing the per cent. of butter-fat in the milk of a herd by a continuance of the present summer system of handling milch cows.

(d) *Lessened cost of production*. — We know that the cost of producing a pound of milk, cream, butter or cheese is less with the fall cow than the spring cow. Many things tend to give this result, the chiefest of which are those we have mentioned. Then, generally speaking, prices are better in winter than in summer, and the product more easily handled; shipping to distant markets is fraught with less risk, while the ever-dreaded bacteria find less suitable accommodation. Even though prices of winter butter may eventually stand on a more equal plane with the summer article, which possibility is already a probability, we firmly believe that the fall cow will continue the more profitable.

Again, the fall cow lightens labor at a very busy season, — a very important matter to the Canadian agriculturist. What a boon to the farmer, whose muscles and brains are alike weary with the strains of harvest, to think, "Well, I have not ten cows to milk to-night." And we may depend upon it, the laboring man and the domestic find no fault with the change from former practice. Not only so, but there follows an equalization of labor throughout the year, a point that must become one of the chief factors in the solution of the labor problem on the farm. A better class of laborers will be secured, and both employer and employed be benefited. One further point which is in favor of the system is the lessening of milk fever. The best dairymen of this and other countries agree that a succulent ration preceding parturition is attended with less danger, in this regard, than the usual winter ration. The latter is an incentive to milk fever, the former a preventive.

#### Effects of Stable Routine Changes on Dairy Cows.

Instances of loss due to strange milkers are doubtless numerous, and it may not be needed to convince dairymen of the necessity of deviating from a regular routine with caution, if they would avoid unnecessary losses. On one occasion the record of a cow which was giving 7½ pounds (about .855 gallons of milk daily) showed a yield of but one pound. Inquiry showed that the established routine, which was to give the cows their feed and then to milk, had not been followed. The assistant had come in late, and in order to milk on time, had omitted to feed first. After stripping faithfully he could obtain only one pound of milk. The next milking was larger than usual, but the irregularity showed that a loss was the result. The yield was for five days, 7.25, 7.38, 6.25, 7.30 pounds respectively. The one-pound milking occurred in the middle day.

Another cow, if milked before being fed, usually became uneasy and might kick very hard. An examination of her milk showed a decrease of fat. Previously the cow's milk had tested 3.60 to 4.40 per cent. fat. On one occasion only 1.60 per cent. of fat was found in her milk when she was milked before being fed the meal ration. This is a serious loss, and one which can be repeated with this cow at any time if she is not regularly fed. Lack of attention to these small things is costing many a man the better part of the profit of his dairy. — *N. Carolina Agricultural Station Bulletin.*

#### QUESTIONS AND ANSWERS.

[In order to make this department as useful as possible, parties enclosing stamped envelopes will receive answers by mail, in cases where early replies appear to us advisable; all enquiries, when of general interest, will be published in next succeeding issue, if received at this office in sufficient time. Enquirers must in all cases attach their name and address in full, though not necessarily for publication.]

##### Miscellaneous.

##### CANADA THISTLES.

Z. W. W., Ridgetown: — "Can any of the readers of the *Advocate* tell me how to destroy Canadian thistles?"

[Plow shallow immediately after harvest. Use a cultivator from time to time that cuts the entire surface until near freezing up time, when the ground should be deeply plowed. Next season grow a hoed crop kept clean. Follow this with a cereal crop seeded to grass, using the spud for the remaining thistles during the early part of the summer. We would be pleased to hear from some of our good farmers on this subject.]

##### ROTATION OF CROPS—STOCK FEEDING.

J. B. E., Ontario Co.: — "(1.) I have a small farm (22 acres) of very heavy clay land; what rotation of crops would you recommend for it? Want to have 7 or 8 acres of hoe crop per year.

"(2.) Would it pay to buy manure for it at 25c. per two-horse load? How many loads should I put per acre, the land being of medium fertility? It yielded about 35 bushels of oats per acre this year.

"(3.) Would it do to feed a spring colt cut feed (oat straw and corn with chop on it) next winter? I have but little hay. Please give me the best feed for such a colt.

"(4.) What is the feeding value of oat hulls obtained at oatmeal mills (\$1 per load), also oat dust from same source (\$8 per ton)? To what kind of stock would you feed each, and how?

"(5.) I notice in the C. E. F. report that turnips sown May 15th yielded, in some cases, three times as much as those sown June 15th. Would you recommend such an early sowing? Would not the turnips sown May 15th be hollow and woody? I think there is a happy medium, say the end of May. This year I sowed my turnips June 15th and waited two weeks, but they did not come up on account of the ground "baking." After a heavy shower I sowed them again and it took these three weeks to come up, and as a result my turnips at present are not well grown, but I had them as late last year and they yielded well.

"(6.) What is the best ration for young pigs after they are weaned? Have no milk to give them."

[1. Hoed crop, wheat, oats or barley, hay (clover and timothy), peas. 2. Yes; fifteen loads. 3. Yes, if you mean corn fodder. Morning feed, cut straw and corn mixed with oat chop and bran with enough boiled turnips to render the whole moist. This should be fed warm. About 10 o'clock a little good hay should be given. At 3 p.m. give the same as in morning, and at 8 p.m. three pints of oats, one or two carrots and hay. See article in Sept. 2nd issue on "System of Management in Breeding Studs of Draught Horses in Scotland." 4. Oat hulls have very little feeding value. We would rather feed good oat straw. Oat dust is dearer at \$8 per ton than oats or bran at present prices. It may be fed to milch cows along with cut feed and pulped roots. 5. In Ontario County the writer has grown his best turnips when sown between June 10th and 20th. Occasionally early sown turnips do best, but not as a rule. It is well to have the land in good shape, ready for ridging, by June 12th, and then sow after the first shower. 6. Boiled pumpkins or potatoes along with shorts, oat and pea chops.]

##### COLEUS TRISTIS—APHIS.

A. I. E.: — "Can you inform me through your valuable paper what will destroy the black pumpkin-bug? I have used a strong solution of Paris green, also Persian insect powder, without effect. Also give remedy for a light green louse that works on the underside of the cabbage leaves."

[The black squash-bugs (*Coleus Tristis*) lay their eggs in clusters on the underside of the leaves about the latter end of June. These can be easily destroyed by hand-picking; or if they are not destroyed in this way the plants should be sprayed with kerosene emulsion, which is also the remedy for the green louse or aphid. Both of these insects suck the juices, therefore poison such as Paris green does no good. Kerosene emulsion kills them if it touches their bodies.]

##### CARE AND FEEDING OF PIGS.

"INQUIRER," Lambton Co.: — "I have a few questions which I would like you to answer in next issue. 1. How old should young pigs be when weaned? 2. Should they be fed separate from their mother before weaned? 3. What feed would you recommend for young pigs? Should they get salt, soda, charcoal, etc.? 4. What is best for brood sow when suckling? 5. How often each day should young pigs be fed after weaned? 6. Should they be closed up in pen? 7. Which is best, sweet or sour swill, for pigs at all ages? 8. Would you feed meal dry, and let them drink clear water? 9. What breed do you consider most profitable to raise? What is your opinion of Tamworths? My reason for asking so many questions is, we have lately been breeding extensively, and our pigs fail considerably when weaned. We generally feed bran and shorts and water slop."

[1. From six to eight weeks, according to how they and the sow are doing. If either is failing wean soon after six weeks old. 2. Yes. 3. Charcoal with a little salt mixed with it should always be within their reach. A few sods thrown to them occasionally, if confined, is good for them. Skimmed milk used instead of water for mixing the slop would give better results. Use oat chop instead of bran; also mix boiled potatoes or pumpkins along with the slop. 4. Same as above, with a little pea chop added, also a few cobs of corn. 5. What they will eat up cleanly five times a day the first week, reduced to three meals daily when a month weaned. 6. No. They are much better to have a medium-sized run. 7. Some experiments have proved one better, some the other; we prefer sweet. 8. No. Slop is much more relished and just as good if well-soaked before feeding. 9. This is a very hard question to answer. Some good men find one breed more profitable and some another. Tamworths are good pigs, especially for crossing with short, wide-backed breeds.

## POULTRY.

### Will Broiler-Raising Pay?

BY R. C. ALLAN, NORTHUMBERLAND CO., ONT.

Can broiler-raising be made a paying business? This is the first question that presents itself to the poultryman or farmer, and I must confess that to the majority who attempt it it proves a signal failure. Four principal reasons are generally found united to cause this lack of success: (1) Want of suitable accommodation for the work; (2) poor stock; (3) want of knowledge as to the best methods of marketing; (4) and where and when to sell the finished product.

In the first place, comfortable quarters must be provided for the flock. A stable to keep two cows in will cost as much as a poultry-house to keep fifty hens; and the latter, rightly managed, are the most profitable of the two. If you attempt artificial incubation, a small brooder-house is also a necessity; and this need not be very expensive either. In a small brooder-house, 8x16 and 5 ft. high to the eaves, I have reared 400 chicks in a season, besides over 100 ducks. If you adhere to the natural method you can do without this building, which may be a part of your poultry-house; but it will pay every poultry-raiser to have a small room where he can at least safely house his young fowl in bad weather, and secure them from the depredations of midnight marauders. And right here let me impress it upon the reader that no amount of care and work, or knowledge, will take the place or make up for the lack of this, the first essential to success: a warm, well-lighted building. The saving effected in the feed bill, and the increased returns in eggs, will in many cases cover the extra outlay in a single season.

Now, taking it for granted that you are properly equipped in the above particulars, we may go on and take into consideration the flock you are going to raise your eggs and chickens from. If you use an incubator to do the hatching, you may keep the non-sitting breeds, as they are undoubtedly better layers than the sitting breeds, and devote their time to filling the egg-basket instead of raising chickens. White Leghorns are, perhaps, as profitable as any, being almost continuous layers, and, if thoroughbred, making nice plump broilers at an early age. However, I believe that proper care of good hens is more essential than that a particular breed be kept. On no account retain cocks or cockerels related to your hens, if you wish vigorous young birds. Nothing causes a flock to deteriorate so quickly as inbreeding. Better chicks are obtained from the eggs laid by hens, but unless a hen is particularly good she should be disposed of after the second year. Young hens moult early, and lay well when eggs are dearest; and when you want them for winter setting, old hens do not renew their plumage so early or quickly, and lay later and fewer eggs, as a rule. Eggs from hens fed upon improper food are often lacking in vitality, producing weak chicks that make slow growth and never attain to their proper size. Systematic feeding of the best egg-producing foods makes a great difference in the number of fertile eggs and the vigor of the future chicks.

If by attention to the above hints you have a succession of broilers during the winter and early spring months, I can safely assure you that you will have no difficulty in obtaining prices for them that will at least yield you a fair return for your capital and labor. Chicks weighing from three to three and a-half pounds per pair easily bringing \$1 and often \$1.25 per pair. In almost every town there are gentlemen's houses where nice, well-dressed broilers are eagerly purchased; and if properly dressed, and put up in an attractive manner, readily command the prices quoted. Such chicks must be forced to maturity from the first day, and must be sold as *broilers*, not kept till large enough to roast. They must be faultlessly prepared, for high prices cannot be obtained for slovenly-dressed poultry. Nine-tenths of the chickens offered for sale on our markets are simply disgusting, and at the prices they bring, are raised at a decided loss. But if you can raise fine early broilers, you will sell without any difficulty all you can raise in a small way at least. In catering to the winter demand, you will secure a class of customers who will pay better prices for summer chicks, and this in itself is worth considerable, if you have many to dispose of. I have no hesitation in saying that chickens fed in the usual way on farms and elsewhere, and kept till they weigh five pounds per pair, cannot be sold at current prices with any profit to the producer.

Broiler-raising as a business is in its earliest infancy, and may easily be overdone, but for some time there is an opening for an energetic, intelligent few in the vicinity of our large towns and cities.