LIVE STOCK.

Are the cattle comfortably housed at night? Less feed is required where comfortable stables are provided than where the animals are compelled to seek the crude shelter of the straw stack.

The high price of stockers and feeders of the right type often induces buyers to purchase the cheaper grades of cattle. It is usually found that the inferior steer is the most expensive in the end, and that very little profit results from the purchase of anything but the good-quality feeder.

There is no better method of turning whey or skim milk to good account than by keeping pigs enough to consume these products. The pigs will yield a good profit on this material, as well as on the slops from the kitchen, and much other material that would otherwise be wasted.

There is no time in the life of an animal that liberal feeding is more required, and gives better returns, than when the animal is young and growing. Growth should be continuous and rapid, and the young animal should not be deprived of anything which tends to promote it. With the liberal feeding, exercise is needed.

It is well to encourage quietness among the fattening animals. Keep them clean and have their stalls well bedded with fresh straw if there is any to spare. Under these conditions, the stock will lie down most of the time when not feeding. An animal in this state is resting, and rest causes him to take on flesh much faster.

While young calves will do better if allowed to run loose in a box stall, it is advisable to teach them the use of the chain or stanchion when young. Tying them while they feed, or for a few hours each day, is sufficient, and will save trouble which will invariably arise if the animals are not accustomed to being tied until one or two years of age.

Keeping pigs on a short allowance of feed is seldom, if ever, in the best interests of economical pork production. A pig must be well fed from birth until he reaches marketable age, if the best cash returns are to be received. It is all right to feed rations conducive to rapid growth to the young pigs, but a ration which is insufficient to either grow or fatten the animal is never profitable.

The feeding of ram lambs offers some difficulties. They seem to be harder to keep in condition than other sheep. They must receive generous feeding until past the yearling stage. Regular and liberal feeding is a necessity. They will do better if kept entirely separate from and out of sight and hearing of the ewes. Strong protein rations should be fed, in order that the lambs' bone and muscle be bulit up. Oats and bran, with a small addition of oil cake, form a good ration for the ram lambs.

Be careful in bedding the sow which is about to farrow. Too little straw will generally give better results than too much. A little chaff or very short straw is suitable material for this purpose. A large amount of long straw is more likely to cause serious loss from the sow crushing the life out of many of her young pigs by lying on them. She should also be furnished with the litter for her farrowing bed a few days before she is expected to farrow, in order that she have ample time to arrange her "nest" to suit herself. A dissatisfied sow seldom raises a large litter.

If pigpens were cleaned as regularly as the cow and horse stables usually are, much of the disagreeable odor commonly found in them would not be noticeable. The pig is not much dirtier than other domesticated animals, if his pen is kept clean. His filthy condition is more often due to the faulty care given him by his attendant than to his inherent desire to wallow in the mire of his pen. Clean his pen every day, and give him a reasonable amount of dry litter, and he will surprise you by his endeavors to assist in keeping himself in a sanitary condition.

It will likely require a little painstaking effort to get the lambs eating satisfactorily when first they are brought in from the fields. Especially will this be true if no feed has been proffered them while they were grazing. Feed sparingly until they commence eating well. Feed is likely to be left in their troughs. Do not expect them to clean this stale material up. Remove it and give fresh food at each meal time. A little coaxing will prove profitable.

Perhaps no other class of live stock suffers more from crowding through narrow and ill-contrived doorways than sheep. Narrow doorways are an abomination and the cause of innumerable abortions, says "Shepherd Boy." Flockmasters should take the trouble to have all doorways and openings leading to and from their pens and yards large enough that such crowding is largely avoided. Abortions are too costly, and anything which has a tendency to increase their number should be carefully shunned.

The amount of grain required to make a pound of gain is, perhaps, the best method of estimating the efficiency of the ration. Grain is always the most expensive portion of the ration of fattening cattle, and the economic feeding of cattle depends largely on the gains made from the grain ration. To get the most economic gains, it is not necessary that very large quantities of grain be fed, but it is necessary to have the grain fed in conjunction with roughage, the whole to make the cheapest possible balanced ration for the fattening animal. Good corn silage and well-cured clover or alfalfa hay, preferably the latter, make a roughage ration, when fed in proper quantity, that will require the minimum amount of concentrate material, in the form of grain, to produce satisfactory gains.

A Problem for Hog-Raisers.

Breeders and feeders of live stock of all kinds realize the importance of exercise to the young, growing animal. Many hog-raisers seem to think that the pig does not need much exercise at any time in his career, but such is not the case. Young pigs which have been well nurtured while on the dam, and later often become excessively fat, and if they do not have an opportunity of moving around fairly freely, they may die as a result of this overfat condition. Just at this season of the year the problem becomes most acute. The young pigs have in many cases been allowed the run of a paddock or grass plot, or they may even have had free range during the fine weather of the early fall; but with the cold weather at hand, they must be housed, and this often means very close housing in small pens where a sufficient amount of exercise is impossible. In such cases the danger can be averted by reducing the feed supply, but this has the bad effect of checking growth, which the herdsman cannot afford to do. Where it is possible, yards should be provided on the south or sheltered side of the hog pens, and the pigs should be turned out into these yards for a short time every fine day. It has been found profitable, sometimes, to turn them out two or three times daily, and, where they are not disposed to take exercise, to drive them around the yard for a short time. To prepare them for the fattening period to follow, it is necessary to develop a strong framework of bone and muscle, and a healthy, roomy and vigorous digestive tract. This demands that the pig gets exercise.

Advantages of Loose Feeding.

Experiments carried on at various agricultural colleges and experiment stations, including the Ontario Agricultural College, at Guelph, and the Ottawa Experimental Farm, have shown that fattening cattle fed loose in box stalls make greater and cheaper gains than cattle fed tied in narrow stalls. There is a reason for this difference in gains; in fact, there are several reasons. Cattle-feeders are agreed that anything which promotes the comfort of the animals tends to the making of more economic gains for food consumed, and there is no doubt that cattle running loose in a good-sized, well-ventilated, clean box stall can make themselves more comfortable than can cattle forced to stand tied by the neck, the extreme limit of their ability to move or exercise themselves being a step or two backward or forward or from side to side in their narrow stall.

Cattle which are receiving a heavy fattening ration require a little exercise, in order that their digestive organs may be kept in the most active and healthy condition. Concentrated feed, such as is very often given in large quantities to these animals, sometimes proves too strong for the best possible digestive and assimilative work being done by the digestion tracts of some of the steers. Standing tied in a stall does not give the animal any chance to move about and by the exercise aid digestion, and, as a result, the appetite falls off, which to some extent relieves conditions in the stomach. Stock-feeders know how difficult it is to get an animal thriving again which for any reason has become "stalled" in feeding. Cattle in loose box stalls are not so likely to give way to such conditions as those which are tied up. They get an opportunity to move about the stall, and their limbs do not become stiff and cramped, as is very often the case with the tied steer. In the best interests of the fattening animal, exercise must needs be limited, and that amount which the steer receives in a large, roomy box stall seems to fill the bill very nicely. The feeder must do all that lies within his power to force his cattle to the finished product on the least possible feed and in the shortest possible time. He cannot afford to lose a week, two weeks or a month by the steer being off his feed and only consuming enough for his maintenance, and often barely that much. The shock of such a condition also affects the animal's system, and he is not so likely to make as rapid gains after such an off period as he would have done had no such condition prevailed. The problem of feeders of cattle has ever been to keep their animals' appetites on edge during the heavy feeding required to add high finish to the carcass, and to do this economically. Anything which adds to the steer's comfort, at the same time tending to keep up his desire for food and to aid digestion, should be encouraged in his care. The loose box, if properly handled, is a help in this direction, and, while good gains can be made with tied cattle, even better results will follow the systematic use of large box stalls or sheds.

THE FARM.

The Chinch Bug.

Editor "The Farmer's Advocate":

The Chinch Bug is seldom heard of in Canada, but occasionally it steps across the line. It has been reported from a few places in Ontario this fall, having done considerable damage to meadows and pastures. It has been found in large numbers in parts of Middlesex Co., where it has been known to destroy several acres. These insects have destroyed millions of dollars' worth of property to the south of us, and have often caused destitution over large areas. It flourishes best in the South, and, so far as the writer knows, has not been known to occur in destructive numbers in Canada before. But their numbers and damage done by them this past fall is such as to warrant farmers keeping a sharp look-out for the bugs next spring; and should they be found at all numerous, their occurrences should be reported to the Department of Agriculture, which will give assistance in eradicating the pest.

Like other injurious insects, it is subject to periodical uprisings, which usually last two or three seasons before natural checks upon its increase reduce its numbers below the danger line. It is subject to the attack of other insects, chief of which is the ladybug, also of certain birds, such as the quail, meadow lark, bluebird, etc. But these enemies are not numerous enough to keep them in check, as the female chinch bug is believed to lay at least five hundred eggs. The most satisfactory means of eradication is the artificial spreading of the fungous disease of the chinch bug.

The adult chinch bug is a small, grayish or brownish-black insect, about one-fifth of an inch in length, having dark-yellow legs, with black tips. When killed, they have a very pungent odor, resembling the stink bug. They pass the winter under rubbish in or around the fields, in corn shocks and straw piles, and among dead leaves in the woods; most abundant in the dried grass around fences and the borders of woods.

From these hiding-places they come out in the spring, about April or May, and attack the fields nearest to them. The edges of the fields will be noticed to turn yellow, and, upon examination, the insects will be found crawling amongst the grain or grass close to the ground. By July or August a new brood will be ready to attack the crops and grasses, and it is at this time the greatest damage is done It feeds principally upon wheat, barley, corn, millet, grass and oats, and makes a complete job when in large numbers.

There are good reasons for believing that our severe winters will hold it in check to such an extent that no alarm need be felt for next year's crop, yet farmers will do well to keep this subject in mind next spring. ED. DUNN.

Middlesex Co., Ont.

[Note.—The Chinch Bug (Blissus leucopterus) is a most destructive insect. It is widely distributed in the United States, especially in the Mississippi Valley. It rarely makes its appearance in Canada, although, according to our correspondent, it has done so during the past season. The species is dimorphic, there being a form which has short wings. Two generations of the bug occur each year. The old bugs, upon emerging from their winter hiding-places, lay their eggs upon the roots or stems of the grain or grass beneath the ground. The nymphs are reddish in color, and live first upon the roots, and afterwards the stalks of the plants which they infest. In less than two months they are full grown, at which time they go in a body in search of new feeding-grounds. Upon reaching a new field of grain, they lay their