

results from these mares were: Dodsworth, Dyer's Dimple, Sophonisba, Grasshopper, Spider, Young Cade, and Matchem. Sir John Fenwick also brought from abroad two or three sires of Eastern blood. The Fenwick Barb, was the only notable stud horse of this lot, he having sired Why Not and Gray Why Not. The former begot the dams of The Bold Galloway and Bay Wilkinson through the descendants of the former, of whom the blood of Fenwick Barb, has been transmitted to the horses of the present day. Curwen, Bay Barb and Tholouse Barb, also imported in this reign, left their marks upon their offspring. In the reign of James II. there was only one sire of importance brought into England, namely, The Stradling or Lister Turk. He was taken in 1686 at the siege of Buda. He became a popular and successful stallion, being the sire of Coneyskins, Piping Peg, Snake, and Brocklesby Betty's dam. In the reign of William and Mary several Eastern horses were imported, the most celebrated being The Turk, brought over by Captain Byerly, and whose charger he was throughout the whole of King William's campaign in Ireland. This noted horse and his rider narrowly escaped capture on the banks of the Boyne in the last brilliant charge made by Hamilton's Irish Dragoons, which broke the English horse and almost retrieved the fortunes of the day for the unhappy James. Happily, The Turk was spared, and subsequently, under the name of The Byerly Turk, became one of the principal founders of the British turf.

Importations from the East continued to be made, and early in the reign of Queen Anne (1702) the importation of The Darley Arabian took place. In 1710 and 1712 he produced Aleppo and Almanzor. Prior to their having run in public Mr. Childers sent to The Darley Arabian his favorite mare, Betty Tudes, by Careless, with the result of breeding in 1715 The Flying or Devonshire Childers, generally esteemed to be the fleetest horse ever trained. Other gets of this sire rendered great service in the British stud. In Anne's reign there were brought into England no fewer than 21 Eastern sires, comprising nine Arabians, eight Barbs, and six Turks.

Looking back to the roots of all the best old pedigrees we easily discover that it is not to one special breed, nor indeed to any one Eastern country, that the world is indebted for the English Thoroughbred. The distinguishing names Arab, Barb, and Turk are found each in sufficient proportion to nullify any special or singular claims on behalf of others. The Barb, and the Turk and a little of the Persian have, in short, played together a great part in the manufacture of the English Thoroughbred, though the chief share of the merit is traced to Arabian influence molded by the masterful genius of the British breeder.

Raising Heifers for the Dairy.

A heifer destined for the dairy must be bred along dairy lines. She should come from dairy ancestry; an ancestry in which the dairy type has been tried by long and careful breeding. Of course a good cow may come from ancestors which were scrubs pure and simple, but such an animal is a freak of nature; she is the exception and not the rule. A calf may be dairy bred, however, and still be spoiled for dairy purposes by injudicious feeding.

From my experience, I prefer to have the calves come in the fall, and consider that this time has several advantages over calving in the spring. Some of these advantages are:

1. A cow which drops her calf in the fall will give, as a rule, twenty per cent. more milk during the year than she will if she has her calf in the spring. If well fed during the winter she will give a good flow, and when turned out to grass in the spring she will be almost like a new milch cow again.

2. If (as is the case with the writer) dairying is carried on with mixed farming, the cows will be dry at a time when field work is most pushing and milking is somewhat of a burden, and when, owing to dry pastures, it is hardest to maintain the flow of milk.

3. The calf which is born in the fall comes at a time when farm work is not so pressing, and the farmer is thus enabled to give proper attention to the little candidates for the dairy, and when spring arrives the calf is able to go out to pasture and get a full bite for herself. On the other hand, if she is dropped in the spring she is too often neglected and overlooked during the rush of the regular farm work, and on too many farms her life is made miserable by horse flies and sour milk. If she must be born in the spring, by all means keep her in a cool and rather dark stable during the heat of summer.

My cows are usually dried off at from four to six weeks previous to calving. I have some, however, which have never been dry since dropping their first calf, but I find that this is detrimental to the calf, as they are generally smaller and weaker than from those cows which have been dry for from four to six weeks. As soon as possible after the calf arrives it is separated from its mother and fed by hand. I find it is easier to teach the calf to drink if it has never sucked, and the cow goes back to her place in the stable without undue fretting, and in a short time forgets all about the calf.

In teaching the calf to drink, many persons make the mistake of using force. It is sometimes a very exasperating job, I know, but gentleness will conquer every time. Do not try to force the calf's head in the pail and hold it there. This only frightens the calf and makes it stubborn. Back the calf into

a corner of the pen, get astride of it, and after dipping the fingers in the milk, put them into the calf's mouth. It will generally begin to suck at once. Then with the other hand gently but firmly press its head down to the pail, still keeping the fingers in its mouth, until her nose touches the milk, then gradually withdraw the fingers, and after getting a taste of the milk it will usually begin to drink, but if it does not do so at once don't get mad, but try again.

I give the calf new milk for the first week, and after that gradually substitute skimmed milk until at two weeks old the calf is getting skimmed milk altogether. The fat in the milk is substituted by peas and oats, grown together and ground fine. Then I feed oil meal in limited quantities, and consider it good, but its cost in the market here will not allow of its being fed at a profit. The pea and oat meal is fed dry. At two or three weeks old the calf will begin to eat hay, and a small quantity should be given her. The hay should be fine and bright. At about six weeks of age I begin feeding ensilage—putting the grain on it—and increase the amount as the calf increases in growth and appetite. Do not overfeed, nor allow the calf to become too fat. A heifer which is "as fat as a seal" may be pretty to look at from a beef standpoint, but she will very likely be ruined for dairy purposes. Keep her growing, but do not allow her to become too fat. Provide a good-sized loose box, in which she may exercise herself to her heart's content. If several heifers are kept in one pen, care should be taken to keep them separated for at least a half hour after feeding milk, otherwise they are apt to suck each other.

I try to have my heifers (Jersey grades) come in at two years old, and coming in in the fall they have a good chance to develop their udders on grass previous to calving. The young heifer should be handled as much as possible, so as to familiarize her with the operation of milking, and if this is done she will not have to undergo that painful and obsolete process of "breaking her in" to milk.

In raising heifers for the dairy select the calves from those cows which you know by actual test are the best in your herd. Breed them to a first-class pure-bred dairy bull. Aim to increase the yield and raise the standard of your herd. Feed your cows intelligently, and bear in mind that the production of milk is largely due to nervous force, and that hence kind treatment is absolutely necessary to success. PAUL C. BLACK.

Hants Co., N. S.

Killing Lice.

J. Arthur Vance, Durham Co., Ont., writes: "It is coming the time of year when cattle are bothered considerably with lice, and sheep with ticks, and we all know, or ought to know, that stock will not do right when such is the case. It is very simple to dispose of these pests if taken in the right way. Any man can by following the directions make a wash which has never failed with us. It is also cheap. Take two ounces of arsenic, one half gallon of soft soap, one half gallon of soft water; mix all together and boil for about half an hour. Then add this to five gallons of water and wash your cattle with it. For sheep pour it along the back slowly so as to let it run down in the wool. We have used this for several years and find it the best remedy we can get. To destroy lice on pigs, mix coal oil and machine oil half and half and put on with a cloth or brush. Some think this will take the hair off, but we have used it for years and have never found it so yet. Several people are inquiring about sheep running at the nose. If you keep lots of pine boughs in their pens this will very seldom happen. They will strip the boughs very fast, and they seem very healthful for them.

[While such a dip as is recommended by Mr. Vance is doubtless very satisfactory when very carefully prepared, there is always more or less risk using an article as poisonous as arsenic. There are a number of very reliable and cheap dips now on the market which not only destroy vermin on stock, but also cleanse the skin thoroughly, causing a rapid and healthy growth of wool on sheep. —ED. FARMER'S ADVOCATE.]

Hog Feeding Experience.

A Wentworth County (Ont.) farmer writes: "I will give you our experience with a litter of pigs from a sow ten months old at time of farrowing in May, 1896. She raised seven pigs. They were weaned at eight weeks old; were fed skim milk and shorts for some time, then bran and shorts, until the last six weeks they had bran, shorts and chopped peas, equal quantities by measure, mixed and wet with water a few hours before feeding. At the time they were sold they were gaining rapidly, but lest they should get too fat or too heavy, they had to go at five months and ten days old, weighing 178 lbs. each on an average; price \$3.80 per 100 lbs.

"FEEDER" writes:—"A point in feeding stock that occurs to me as being worthy of mention, and one which I have had occasion to notice, is this: The animals having strong, powerful jaws, being widened out at the muzzle, with good breathing capacity, are nearly always the best doers. To my mind the reason lies in the fact that the points which I have mentioned simply indicate strong digestive power, which is of the utmost importance in feeding stock."

Exercise for Fattening Cattle.

To the Editor FARMER'S ADVOCATE:

SIR,—In your issue of April 1st I became much interested in the valuable report of the extensive experimental work carried on by the Hon. Mr. Mulock, and consider it an article worthy the closest consideration and study of the beef producers of Canada. The experiment entirely explodes the non-exercise theory held up by so many. I have always contended that in order to secure the greatest possible benefit from the food consumed we must necessarily have a condition of as perfect health as is possible to get, and in order to attain that perfect health we must avoid violating any of the laws of nature. Compelling an animal to stand tied up by the neck week after week, month after month, allowing absolutely no exercise, is surely in direct violation of nature's laws. It occurs to me that a sufficient amount of exercise is as necessary as a balanced ration to produce perfect harmony. For example, take a strong, healthy member of the human family; supply him with an abundance of rich, stimulating food; allow no exercise. The result will be seen in a very short time (varying in time according to the constitution). The person's digestive powers become overtaxed (for there appears to be a limit to the capacity, he gets indigestion, biliousness, etc., which is nothing more or less than an inability on the part of the organs to perform their functions. What must be the consequence? The amount of food taken in and unappropriated not only does not do any good, but actually does harm, as it simply imposes a tax on those organs. Does not the same condition exist, in a modified way, in the lower animals, for the processes of digestion are similar? Again, animals so tied are usually not curried and their coats become full of dirt and scurf, so that natural secretion becomes impaired and undue functions are imposed upon other organs.

Confirmatory evidence of the reasonableness of the result of the test reported from Mr. Mulock's farm is to be seen in the ease with which cattle are fattened on Eastern pastures or the great ranges of the West, where, with exercise *ad libitum*, fresh air, water, and grass, they come off in such prime condition for the butcher. I trust the experiment will be fully verified, as it is one of the most important ever carried on publicly or privately, and that others will give us the benefit through your paper of any experience they have had.

"BOX STALL."
Durham (West) Co., Ont., April 3rd, 1897.

Hints on Horseshoeing.

The foot of a horse is one of the most delicate things for a man to tamper with. Some cut and slash a foot, with the idea that they can turn nature upside down at their demand. Now, if the frog is diseased, the loose, dead scraps around it may advantageously be cut off, and if it is one-sided it may be trimmed a little on the heavy side, so as to bring it back to its natural position; but if a frog is healthy, and you wish it to remain so, let it alone, only be sure to keep it clean.

What are the bars there for? To hold the sole of the foot and the heel to their natural place. Still, those who do not understand anything about what they are doing go to work and cut them out. It seems to me quite necessary to have some protection for the horseshoeing department. Many horses suffer more from the treatment they receive in the shoeing shop than from all their work combined.—George C. Davis in *Farming World*.

FARM.

Green Oats and Wheat for Hay.

To the Editor FARMER'S ADVOCATE:

SIR,—On page 110 of the ADVOCATE, you invite views from practical men, based on experience with curing oats and wheat as hay when in the milk stage or ripened grain. I would say, allow the grain to nearly ripen; that is, when the grain is in the late dough stage. At this stage the straw will be very valuable for fodder when properly cured and saved. The following are my reasons: (1) You get the full growth of the plants. (2) It does not cost as much to cure and handle the grain crop as the unripened before it gets to the barn. The extra cost in handling unripened will sometimes pay for the threshing. (3) When you have your grain threshed you can have it properly ground and feed it in quantities to suit yourself. If Mr. Stairs would like something to take the place of oat and wheat hay, I would advise him to sow 8 lbs. Mammoth Red clover and 12 lbs. timothy seed per acre at the same time he is sowing the oats, and sow the small seeds as directed in March 1st issue. If his land is in good condition, allow it to remain in meadow three years; if not, after one crop of clover is taken off plow up late in the autumn or the following spring, having the second sowing of oats and clover to take its place. Again, if clover will grow on his farm sow clover every time you sow wheat, oats, barley or rye; if for meadow, 8 lbs. and timothy. If for plowing under the first season, sow 12 lbs. clover per acre. If his land is not suitable for clover, I have another mixture that I would recommend.

On the same page there are some notes wanted on crimson clover. This plant I have no use for. The seed is too expensive; the plants grow weak and spindly. It only lasts one season, and winter-

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