

Life of a Horse." Some of the opinions follow:

This is a matter that obviously depends on a variety of circumstances—the constitution of the animal, the way he has been cared for and fed, and the class of work he has to do. Most of the correspondents, however, agree that horses at farm work will, on the average, work efficiently for about twelve years. Mr. C. M. Cameron puts the average at 14 to 16 years; Mr. M. Gilchrist at a year or so less; Mr. Campbell at 14 years; Mr. Wallace at 10 years on heavy land, and considerably more on light land; and Mr. Cunningham at 8 to 10 years. Mr. John Marr has frequently had mares working and breeding until over 20 years. Mr. John Speir, in his district, where carting is heavy, finds the average working life of his horses to be from 8 to 10 years. On this footing, he puts the cost of renewing per annum at one-eighth or one-tenth of the cost of the horse, less its selling price.

Mr. Harry Hope, in East Lothian, finds that, with their extensive system of cultivation, 10 years of efficient work is about the most, on the average, that they can get out of their horses. Personally, Mr. Hope writes down the value of his horses by £6 each per annum.

A correspondent asks whether, by giving his horses oats at morning, noon and evening, and then turning them out to grass at night, they should keep in good working condition.

Generally speaking, they should. Horses are very often better off by spending the night in the cool, out of doors, than by sweltering in a hot stable; but, of course, heavy feeding of grass makes them soft, or, if the pasture is not good, they may not get enough bulky fodder. Horses that have a few feeds of grass each spring, cool out, and generally have better health than those that are kept on dry feed during the hot weather. If horses get grain three times a day, with grass at night, and fall to keep in working condition, the trouble will likely be found in some other quarter than the feed box.

LIVE STOCK.

FEEDING AND MANAGEMENT OF BREEDING SWINE.

THE BOAR.

The boar should be given plenty of exercise, and kept in a thrifty, healthy condition. If he is kept closely housed, he will not prove as good a breeder for as long a time as if he were given a fair amount of exercise, but do not let him run at large and forage for his living, as he cannot pick up enough food to maintain his strength. He must be fed a little grain. A breeding boar should be kept in medium condition, neither excessively fat nor too thin. He may be bred to a few sows when he is eight months old, and at a year old he should be in his prime, and, if in good flesh, it is seldom that he is over-used.

Oats should form a considerable part of the meal ration, as they are muscle-formers, and not too fattening. Bran, barley or wheat middlings are also good if fed with the oats. He should be given plenty of succulent food, such as sugar beets or mangels. Give him variety and make his food as palatable as possible, but never feed more than he will eat up clean.

THE SOW.

It is very essential that breeding sows be given plenty of exercise. It is necessary at all times, but especially so during the period of gestation.

In summer, the sows should be turned out to graze. If one has a permanent pasture or a field of clover or alfalfa in which the sows may run during the summer, it will keep them in excellent condition, and they will require very little or no other food. If there is good water flowing through the pasture, so much the better; but if not, supply it. They must also be given shelter.

During the winter the sows may be allowed to run around the strawstack or in the barnyard. A shelter must be provided for them to sleep in; a portable pen answers the purpose admirably. It is better not to be too warm, so long as it is dry, free from drafts, and well supplied with straw in which they may huddle.

Mature, thrifty sows can be maintained in excellent breeding condition on a ration consisting largely of roots, preferably mangels or sugar beets. During a cold snap, some grain should be given. As the sows become further advanced in the period of gestation, it is necessary to give more nourishment in less bulk. Therefore, the allowance of mangels should be gradually decreased, and the complement of grain correspondingly increased. As the period advances, oats, shorts, or middlings, is excellent, but corn or barley should be used sparingly, as they are too heating.

A week or ten days before farrowing the sow should be placed by herself in the breeding pen, so that she may become thoroughly accustomed to her new surroundings before the critical time arrives.

The pen should be light, dry, and well ventilated, but not draughty in winter. There should be a guard rail running around the sides of the pen about eight inches from the floor and ten inches from the wall, to prevent the dam overlying her young. Very little bedding should be given the sow, and this should be of short straw. If a large amount of long bedding were used, the newly-farrowed pigs might get tangled in it, and be lain on by their mother.

When the sow is taken in at first, restrict her feed for a day or so, and feed on soft, light feed, and have the sow used to you, so that your presence may not excite her.

If the sow is long in farrowing, place the newly-born pigs in a box until parturition is complete, then give them to her so that they may suck. If it is cold, place the little pigs in a box with a hot-water bottle, and cover them up till they are warm.

Never feed the sow directly after farrowing or you may lose her, and also the pigs. If she lies for ten or twelve hours, do not offer her anything, but when she does rise give her a drink of luke-warm water. Fresh, warm skim milk is also good, and will answer for the first forty-eight hours, then you might mix in a little middlings, and at each feed increase the meal, until she is getting all the feed she will eat up clean.

Care must be taken to prevent her from becoming constipated before and after farrowing. Never feed apples during the period of gestation, nor when the pigs are sucking, as they are too acid, but give her all the nutritious, palatable food that she will eat up clean.

When the pigs are big enough to begin eating a little, give them a small trough where the sow

It is my belief that in summer pigs can be more cheaply raised on pasture supplemented with a light grain ration, as the hogs, having unrestricted access to earth, and taking plenty of exercise, are vigorous and healthy. There is never any trouble with paralysis, or with pigs going "off their feed"; and, with good fences, a large herd can be carried in this way with a minimum of attention, and, when finished and slaughtered, they will kill out firm, evenly-fleshed, and will shrink very little in curing and shipping.

R. W. HODSON.

EXPENSIVE BEEF PRODUCTION.

Editor "The Farmer's Advocate":

It is a very simple fiction, this idea occasionally advanced, that a special-purpose beef breed is essential for the economical production of meat. As a matter of fact, the precise opposite is the case. The special-purpose beef-bred cow is the most extravagant source of beef supply under any prevailing conditions except the range, and even there she is not sought, ranchers preferring to graze young cattle bred in the mixed-farming sections, rather than herd a cow twelve months, in the chance of obtaining a calf. Eliminating the ranch, and confining our inquiry to ordinary farm conditions, such as exist generally throughout America, we find that the only point in favor of the special-purpose beef-bred dam is that her calves turn out a somewhat superior quality of eating, and yield carcasses with a larger proportion of coveted roasts and steaks than will the stock out of less perfectly-modelled dams. It may also be said that she lends herself to a convenient

and congenial system of farm management, whereas the dual-purpose or the special-purpose dairy cow requires to be milked by hand, thus involving a heavier charge for labor, more skill, and more exacting attention.

Having said this on behalf of the special-purpose beef-bred cow, all is said. Yielding her every point that may be reasonably claimed, we still find her heavily handicapped, for her total annual product consists of her young calf and what nourishment she imparts to it during the first six or eight months of its life. Inasmuch as the milk is worth for calf-feeding, probably not over twice as much as a corresponding quantity of good skim milk, the season's yield may be written down as worth ten or, in rare cases, twelve or



Polo Pony, Arthur.

Winner of first and Lady's Field Cup, London (Eng.) Polo Pony Show, 1908.

cannot get at it, and put a small quantity of warm milk in it, with a little meal mixed in. By the time the pigs are six to eight weeks old, they will have almost weaned themselves.

If you wish to get two litters in a year from a sow, the pigs must be weaned when they are six weeks old, and the sow bred as soon as she is in condition.

After the pigs are taken away from the sow, see that her udder does not become inflamed for want of being milked, and if she still gives a large quantity of milk, cut down her feed and give her only dry food, such as whole oats, for a day or two, and allow the pigs to suckle once or twice in twenty-four hours.

After the pigs are taken away from the sow, do not be too generous in feeding, but make them take exercise by scattering a little grain on the floor. If they become too fat, they are apt to die of "thumps." The best pigs will die first.

After weaning, feed often and lightly, if possible, but only give what they will eat up clean; never let food accumulate in the trough. Feed three parts middlings to one part ground oats soaked in skim milk, or in water if milk is not available. At the age of three months old, a little barley may be mixed in the feed, and, as the pigs grow the quantity may be increased. Give plenty of skim milk and roots for dessert. Always provide a small quantity of charcoal, as it prevents indigestion, and also mix some sulphur in the feed, as it is a mild laxative.

fifteen dollars. As for the calf, experiments in beef-making indicate that when a well-bred calf is reared for beef, it usually keeps it busy to pay its own board bill, without putting aside anything to pay for the annual keep and yearly depreciation in value of its dam. Seldom does such a calf command more than two or three dollars at a week old; but let us place it at five. Now, adding the value of calf and calf feed, we have fifteen, and, in rare cases, twenty, dollars, as the annual gross revenue of the cow. From this, deduct a dollar for service fee, and four dollars to cover risk, such as cow failing to breed, or to raise her calf, and we have the magnificent sum of ten or, occasionally, fifteen dollars to pay for a year's keep of the dam—about the price of a ton of hay. Compare with this a very ordinary yield of 3,500 pounds of marketable milk produced by the despised dual-purpose cow, or 4,000 pounds produced by a special-purpose dairy cow (both conservative estimates), and, valuing it at 80 cents a hundredweight, we have a prompt cash return of \$28 and \$32 per annum, respectively, saying nothing at all of the value of the calf, which may easily be and often is worth more for herd-replenishing purposes than the \$5 valuation on the beef-bred calf. Let us place the value of these calves at \$2 each, over and above bull service, thus bringing the annual product up to \$30 and \$34, respectively. The risk in the case of the dairy matron is a consideration, but is not so much of an item in the case of the dual-purpose