finiment mentioned should be used, and a little should be rubbed in with smart friction once daily. As such enlargements are hard to reduce, a great amount of patience must be exercised, as quick results are seldom noticed.

Whip. seldom noticed.

Only the Heavy Colts Pay.

EDITOR "THE FARMER'S ADVOCATE":

A number of years ago we tried our first venture in horse raising and since then, although it has been on a limited scale our experience has been varied enough to be able to come to some conclusions.

Six years ago we purchased our first mare, a cayuse weighing perhaps eight hundred or thereabouts. She presented us with a "catch colt" for she had been free on the mountains. At that time any old thing that would pull a little was worth about \$90 and if they should have 1.100 pounds to their credit they would bring unbroken, \$125. It looked like easy profits to have a few of these mares out on the range so we tried it. The first time we had a chance of a sale we couldn't get a "round up" and so lost out. Hay was selling at \$28 and to bring in a bunch of likely ones would soon run away with the profits. So we had to change our methods.

We got two mares in; one of them weighed about 1000 lbs. and the other weighed about 850 lbs. There were two sires in the district, one a Thoroughbred and the other a pure-bred Hackney. We finally decided to use the Thoroughbred and to-day we have two fine four-year-old fillies, one from the smaller mare and the other from the heavier mare. They were stabled the first winter and sent free on the range for the summer. "Round up" came in the fall and they were left with a rancher to feed for their second winter. Their third winter they were allowed to stay free on the range. To-day they stand us somewhat over \$135 each in actual outlay of cash and would only bring us \$65 if there were a market at all. Why? Because they are not heavy enough for anything but saddle.

Our defective reasoning is to blame. We thought that if the mares were small that to breed up to a heavy horse would give us a disproportioned, ungainly animal, the difference in size would be likely to result in a clash that would never sell but if we used a splendid traveller and a good, stylish horse of a weight not much greater than the mares we would get good form and a respectable looking beast. We were right there, we have a splendid team, pretty as pictures, active as cats, gentle and yet intelligent, but they have not weight enough to haul a cultivator. Both fillies are prac-

tially the same size.

The following year we bred these two mares on a different plan. We used the pure-bred Hackney and a grade Percheron. The smaller mare we used with well-bred (not pure-bred) Percheron and the heavier with the Hackney. Today the filly from the small mare and the Percheron is three years of age and is as big as the Thoroughbred's colt, shows splendid conform-ation and will fill out to be considerably bigger yet. The Hackney's colt died from joint ill, but a neighbor who had a mare very similar to ours bred to the Hackney and he carnot place his mare for another year as she is too light in weight and yet has made splendid growth. His colt will have cost him over \$150 and yet he will find it very hard to sell her unless he keeps her another year, and he would be very glad to take \$150 for her now.

All through here there are colts coming on this year from these small mares and Percheron sires. The first pure-bred Percheron came in four years ago and was on one section of this district for the latter part of the season. Colts from this mating are showing up well in size and conformation, while the stock from the Hackney which is here with four years to his credit are not, in most cases heavy enough and he is not a small are not worth half the cost of raising and the same applies to the stock from the Thoroughbred while the mishts from the Percheron have enough weight alone, to make them at least pay the outlay that we have made on them.

It begins to look as if unless you have mares of the same breed as the sire you are going to use or at least very much like him you are far better off to have with a light horse is small, use a Percheron; other heavy horses give fair results but not as good on small mares as the Percheron. If you want to play a safe game that looks like the only method with small stock. The light breeds seem to need four years to get them on the market, while to keep them over that extra year.

Walter M. Wright. three will do for the Percheron and and it costs a lot

Horses Doing Well on Silage.

Many growers of silage corn have had some qualms with regard to feeding silage to horses. "The Farmer's Advocate" has, time and again, cautioned its readers against feeding too much silage, or feeding silage which has become mouldy or is in any way below par to the horse stock even in the idle days of winter. The other day, while visiting the farm of W. C. Good, Brant County Ontario, we remarked that his horses were in particularly good condition and enquired as to what he fed. Mr. Good, was short of hay last fall and his horses have been getting a good-sized scoop-shovel full of sweet, well-kept silage twice a day as the main part of their roughage ration. They also get straw, and a small feed of crushed outs is given three times a day. Mr. Good has had no trouble with feeding silage to his horse stock but advises care and would not, under any consideration, feed mouldy or spoiled silage

and always starts the horses on small feeds at first gradually increasing up to the scoop-shovel-full at each meal. Judging from the appearance of these horses the careful feeder could very often use silage to good advantage in winter feeding, but there is a great difference in feeders and we would not advise the man who is careless about his feeding operations and cares little about the appearance of his horse stock to try silage. There are large numbers of good feeders, however, who, provided they have the right kind of silage, could make good use of it supplementing other feeds for their horses during the winter.

LIVE STOCK.

No Money in Being Over-stocked.

The man of experience knows, full well, that it never proves profitable to attempt to carry more stock than the farm is capable of carrying any more than it does to operate a farm on a mixed-farming basis without sufficient live stock to maintain the fertility of the farm and return profits on the largest amount of finished products the farm can turn out. The man who keeps too much stock is a detriment to the live-stock business, because the animals composing his herds and flocks are always in low condition, are not properly looked after, and are a poor advertisement for his business. It is very often the case that the overstocked farm carries a large proportion of its stock in inferior scrub animals which should never be kept. The highest price for any of the stock prepared for sale cannot be obtained because the time, feed, and neces-

Amphillion. A typical Thoroughbred sire.

sary care is not given to them to make them the topnotchers of the particular class they represent, and experience has taught that it is the high-quality stock which returns such profits in every case. There is always a market at a fair to good price for the best always a market at a fair to good price for the best the farmer can produce. There is often no market, and there is invariably a comparatively low price, for medi-ocre and cull stock. We were in a stable a few days ago where every cattle beast was clean, fat, and sleek, and where everything seemed to be looked after to the best advantage of the stock and their owner. The farm was not overstocked, there being something over 30 head on the 120 acres. Plenty of room, plenty of feed and sufficient time were available to take the right kind of care of the stock, which was grade throughout but would compare very favorably with most pure-bred herds. All the calves and young cattle were polled, not congenitally, but had been rendered so by the use of caustic potash on the scurs before the calves were three weeks of age. It has been found that this practice has rendered the cattle much more docile, and that they feed together in loose boxes to much better advantage than where horned cattle are so fed. Stopping the horns does not injure the calf in any way, and when a large number of reds and roans are seen together, as was the case on this particular occasion, one is bound to agree that their appearance is not injured, and that for sake of the utility advantage the horn should go on all grade stock. Many farms are under-stocked, but there are a few carrying too many, and where this is the case greater success will crown the efforts of the stockman if the size of the herds is cut down and more care given to the very best animals kept. There are few herds indeed in which a little judicious culling would not work to the material advantage of the owner.

Silage and Alfalfa in the Feed Lot.

Silage has been almost universally misunder-stood. It was, at first, fed only to cattle, and then very cautiously. Horses were then tried; some it killed, and others seemed to thrive on it, but the untoward results came largely from musty and sour silage. It was advised as not suitable for sheep at first, while now, by the best shepherds, it is fed liberally. Only recently a farmer incidentally remarked in the writer's hearing that he fed it to his chickens as green feed, and was getting eggs. It has become a staple form of roughage and succulent feed where the silo is a part of the farm equipment. Farmers, the agricultural press, and experiment stations enlarge each year upon its possibilities, but we have not yet learned to the full extent the many uses of corn silage in the feed lot. This article is not being penned to lament the lost opportunities of the past, but to offer a few suggestions that may influence stock farmers in determining their crop rotations in the future.

There is a study in economics about growing feeds and marketing them through live stock. It is a poor practice to have such a heavy stock and so much work connected with it that the farm crops are neglected. On the other hand we must have horses, cattle, sheep or swine to consume the farm product, transmute it into money or its equivalent, and, at the same time, leave the greater part of the fertility on the farm that was taken from the soil by the The system of stock farming that will permit of maximum production and fair returns for each bushel of grain or ton of hay seems, at this time, to be most in keeping with practical and profitable farming. We must

farming. We must have the production before hay and grain can be converted into beef, milk or pork in such quantities that the old farm can lift the mortgage or make appreciable increases to the bank account. The summer months are intended by nature for the growth and production of feed for animal life. He is a wise farmer who garners much and feeds it to the growing or fattening stock, or the milking cow in winter. This paragraph is not a digression from the subject on hand. What kind of crop will yield more feed per acre than will corn? There are few crops indeed that can be grown under ordinary Ontario farm conditions that will outyield corn in feed constituents per acre. Another question may be asked: are Ontario farmers growing as much corn as they should?

Corn for the carbo hydrates, and alfalfa or clover for the proteins, are the farmer's standby. From the ann

and

767

pedi

Alth

cattl

owne

aucti

head

Gree

May

out o

Short

dame

200

milk

a ma

early

the b

has b

a spor

that o

a bit

Journa

asides

bull w

May (

macha

610 gt

average

As ing cu

viewpoint of yield per acre there are few crops of their respective kinds that will surpass them. Fortunately, too, they combine into an excellent ration. cessful dairyman, who, as an institute speaker, was listened to by thousands of farmers over this country, declared that he produced milk most cheaply from ration of alfalfa hav and silad concentrates would increase the flow of milk, but they

would, at the same time, increase the cost of the milk. Developing the argument for silage still further, it has been demonstrated that in the absence of hay and other roughage corn silage will supply the needs of the animal for roughage, and, at the same time, provide sufficient quantities of carbohydrates to produce gains. Over a year ago when cottonseed meal could be purchased very reasonably, a steer feeder in Western Ontario departed from the orthodox custom of feeding hay, straw, silage and chop to his bullocks, and put them on a ration of silage and cottonseed meal. Those bullocks when finished constituted one of the best loads of cattle that went out of his district that season. Last fall in Waterloo county, Ontario, a feeder finished 86 steers on a ration of silage, and chop consisting of ½ oats and 1/2 No hay or straw was given, except some straw as litter. The steers were allowed practically all the silage they would consume, their manure was quite firm, and they apparently suffered little from the lack of dry roughage. At the Pennsylvania State College 6 lots of steers were fed on different rations, two of the objects being to secure more information concerning the value of corn silage as a roughage for fattening cattle, and to determine the value of alfalfa, as a source of protein, in a ration for fattening cattle. The conclusion published in a bulletin on the matter reads thus: "Corn silage at \$3.50 per ton is