

The same precautions should be taken when pasturing alfalfa as when pasturing clover, i. e., the hogs should not be turned on before the pasture is well started, should not be pastured while the land is wet, nor so heavily that the plant does not grow well, and should not be allowed to grow large enough to get woody. If the purpose is to use the alfalfa solely for pasture, the field should be divided and one part pastured while the other is growing. The common practice, however, is to allow enough pasture, so that about two crops or more of hay are harvested each year while the hogs are using it for pasture. By cutting the parts of the field a few days apart, one part is furnishing pasture while the other is being cut for hay. In this way pasture is furnished for a very large part of the year.

The composition of clover and alfalfa, and the character of the forage furnished by pasturing the two, are so nearly the same that the best methods of feeding for one will apply equally well for the other. As neither alfalfa nor clover seed can form any considerable part of the ration, the feeding value of the pasture rests on the forage alone. Since both plants furnish an abundance of protein for the growing hog, and corn is the great fat-producing food, corn, alfalfa, clover and hogs are fitted by nature to be closely associated.

The amount of grain to be fed on clover or alfalfa pasture varies, of course, from no grain at all to full feed, according to the time the hogs are intended for market. Of the 153 replies to the questions asked by the Missouri Station as to whether hogs will make a satisfactory gain on pasture alone, 121 replied in the negative and 32 in the affirmative. Of the 32 men who got satisfactory gains without grain, 16 use clover alone, 2 alfalfa, 3 clover and alfalfa, while 6 more use clover in connection with other crops, and 2 do not designate the kind of pasture. It is safe to say that the experience has been sufficient to warrant the statement that clover in bloom, or alfalfa, will, under favorable circumstances, make a fairly reasonable gain on grown hogs in thin flesh without grain. An excellent comparison between the different amounts of corn to feed to shoats on alfalfa pasture was made at the Nebraska Experiment Station with corn alone fed to shoats on alfalfa pasture.

The results of an experiment lasting 63 days with 10 pigs weighing about 75 pounds per head in each lot are shown below:

Ration.	Daily grain per pig.	Total gain per pig.	Average daily gain.	Gain per 100 lbs. gain.
No grain		1.4	.02	
Light feed	1.33	21.7	.34	386
Medium feed	2.48	39.8	.63	398
Heavy feed	3.46	53.7	.85	423

These results show that with 75-pound pigs a feed of corn is necessary to get satisfactory gains. With no grain, the pigs little more than held their weight; with 1.33 lbs., or about two ears of corn daily, a gain of .34 lbs. daily was made; with 2.48 lbs., or between 3 and 4 ears of corn daily, a gain of .63 lbs. daily per pig was made, while with 3.46 lbs., or between 5 and 6 ears of corn daily, a gain of .85 lbs. daily was made. It will be noted, however, that as the amount of grain fed daily was increased the grain required to make a pound of gain was also increased. Another trial was made at the same station, under the same conditions, but with different amounts of grain. These lots, consisting of 17 52-pound pigs, were fed $\frac{1}{2}$ pound, $1\frac{1}{2}$ pound and 2 $\frac{1}{2}$ pounds of corn, respectively, per 100 pounds of live weight, and allowed to run on alfalfa pasture for 98 days, with the following results:

Ration.	Gain.	Daily gain.	Gain per 100 lbs. gain.
$\frac{1}{2}$ lb. corn per 100 lbs. weight.....	27	.28	124
$1\frac{1}{2}$ lbs. corn per 100 lbs. weight.....	36	.37	222
$2\frac{1}{2}$ lbs. corn per 100 lbs. weight.....	48	.51	332

The similarity of the results of these two experiments indicate that they are reliable in showing that the smaller amounts of grain make cheaper gains, but that the heavier amounts of grain show faster gains, and are, therefore, getting the pigs fatter and nearer ready for market, because the light ration does little more than keep up a good growth without fattening, while the heavier ration lays on a good proportion of fat.

The farmer is always in danger of his plans being frustrated by some bad weather killing the crop intended for summer pasture. As clover is the principal hog pasture, the question is, "What

shall I do when clover is killed?" A great number of men put the land in corn and either sell the hogs or let them have whatever is handy or convenient. There is no need for this, however, as for pasture in May, oats or rape, or a mixture of the two, can be sown as soon as frost is out of the ground. This will make as good pasture as clover, and will provide forage for about twice the number of hogs per acre. This pasture will last until another of the same kind can be sown, about three or four weeks later. By alternating between these two lots, and not pasturing the rape so close that the stems are bare, new growth will keep coming until spring-sown clover is ready to pasture, or, if this fails, a small patch of sorghum will be of use until a field of cow-peas, planted May 15th to 30th, is ready to pasture in August. After the cow-pea field is cleared, later-sown cow-peas or a patch of late-sown rape will furnish forage for late fall, or rye and crimson clover sown in corn will make good late fall pasture. But with oats and rape sown six to eight weeks before use for early summer and late fall, and cow-peas planted two and one-half to three months before using for late summer and fall pasture, no man need fear to raise a crop of hogs on account of his clover drying. It is entirely possible and practical to furnish the best of hog pasture without having either bluegrass or clover, and on less land, but at a slightly greater cost in money and time, by using small fields of quick growing crops, such as oats, rape, cow-peas, cane or artichokes.

Summer and the Calves.

Nearly every farm raises a few calves each year, but not all calves get the care and attention best suited to their development. Many seem to think that all a calf needs during the summer months is grass and water. True, they will exist on this, but if they are to make the growth which they should, it is necessary that a certain amount of care be given during summer as well as in winter. Prof. H. Barton, writing in the Journal of Agriculture and Horticulture, discussing whether or not calves should be turned out for the summer, says:

"If we were to answer this question by the general practice, the answer would be very decisive. One of the most common sights on the average farm in the summer time is a bunch of starving calves huddled in the fence corner in search of shade from the blazing sun, and where they may by chance scrape off some of the tormenting flies that swarm about them. There are so many factors at work, however, in most cases that pasturing in itself may be easily misjudged.

"The practice of turning calves out in the spring, when they may be of any age from a day to six months, simplifies their care, and the fact that so much can be expected of pasture, sometimes whether there is grass present or not, amply satisfies the average man in the matter of feed provision. The calves should grow and do all right whether they do or not, and, in any case, eventually they will make cows.

"At present there seems to be an ambition among many to obtain better cows, and frequently we have extravagant prices paid for both bulls and cows to improve the herd. Yet in the next step with the calf, the same old practice prevails. We can with difficulty buy the right classes of cow, but we can never produce her without developing her, and the most vital stage in the whole developing process is undoubtedly in her calfhood. Be it understood then that we must feed her; no calf develops unless in fairly good condition, and no calf will be found in good condition without a liberal food supply.

"After feed comes treatment. We are now at a common turning point in treatment; should we take the usual course and turn the calves out, or should we reverse things and keep them in? My answer might be either yes or no, but were I to take the turn or advise it to any one else it would be subject to qualification.

"The calf pasture should be a special one, not necessarily large but of good quality and where access may be had to shade. Shade is indispensable. If no trees are in the field, the calf pasture should certainly be connected with the buildings. Grass will prove abundant during part of May, June, and early July, after which roughage should be supplied. It may be necessary earlier, but during the grass period a small patch will furnish a large amount of feed and the calves will do well, the flies and sun both being not too severe. After this period, unless under especially favorable conditions for grass, it should not be depended upon.

"Calves that were dropped in the fall or early winter will do well on grass as soon as it is ready for them. They will have become accustomed to it and be doing well when conditions commence to become more severe, and they will suffer less check than if turned out later.

"Calves that have been dropped in late winter or early spring will do best in the barn. If a fresh grass paddock is in close connection with a building to which they may have free access, they will be somewhat more easily kept clean,

and if fed just as if they were indoors will do fairly well, but rarely as well as if kept inside. When the after grass is abundant and after the most severe season for sun and flies has passed these early calves can be put out, but still fed at least a grain allowance. They will be checked in growth, but will feed well through the winter and take to pasture readily this next spring as a result of having had a fall run.

"Calves that were dropped in late spring or early summer should not be turned out. Invariably the late calf, if it is fortunate enough to be kept inside and allowed a little extra attention because of its late arrival, will surpass those that are much earlier, and will do so in the first year of its life."

Our English Correspondence.

SOME RECENT SHOWS DESCRIBED.

Oxfordshire is going in for the milking Shorthorn, and as a consequence great attention is now being paid to the type at the annual County Show, held recently. The class for bulls bred on the lines laid down by the Dairy Shorthorn Association consisted of eight. J. A. Attwater's Fairyland, a good roan, of nice color and style, was given pride of place.

There were at least three cows of more than average merit amongst those which competed in the older cow class, and all but one of which gave above the standard quantity of milk. The winner was Fylde Morwenna 2nd, a neat and stylish roan, by Blood Royal 3rd, out of a cow of T. S. Stokes' breeding. She was exhibited by R. Silcock & Son, and, although only four years old, gave 32 pounds of milk in the ring. C. R. W. Adeane took second with Babraham Countess Clara, a very nice looking red seven-year-old, possessing a good top and fine Shorthorn character. Her yield was 30 $\frac{1}{2}$ pounds. Third went to Lord Lucas for Charity 23rd, a light roan of true milking type, whose yield was 27 pounds.

In three-year-olds, Sir Arthur Nicholson had no difficulty in taking lead with his Tring purchase, Wild Cherry, by Conjuror, and carrying a good udder. Her yield was 23lbs, an amount exceeded by 1 $\frac{1}{2}$ lbs by Daisy 26th, a nice sort of dairy cow by Kelmscotman, shown by R. W. Hobbs and sons. The last named exhibitors were perhaps a trifle lucky to win in the younger class with Rose 49th, a straight, good-uddered heifer, by Cranford General, and one which gave 22 $\frac{1}{2}$ lbs of milk. The favorite with some ring-siders was Samuel Sanday's Puddington Solo, a very good roan, which gave the splendid yield of 25 $\frac{1}{2}$ lbs of milk. Third was E. S. Godsell's Salmon's Darling 3rd, the Dairy Show winner, which, although calved as long ago as last September, is still giving 2 $\frac{1}{2}$ gallons a day.

Turning to other breeds the Earl of Coventry was the successful exhibitor in Hereford cattle. The special for best Aberdeen-Angus went to J. J. Cridlan's bull, Proud Esmine of Maisemore. Lord Rothschild was prominent in Jerseys, his successes including both championships.

In ordinary Shorthorns champion prizes fell to F. Miller's Man-o'-War and R. Cornelius' Bankfields Belle.

In Shires the championship went to Lord Rothschild and Sir Walpole Grenwell.

Naturally, there was a great array of Oxford Downs. Yearling rams numbered 21, but a capital exhibit which won first, second, and third for James Horlick earned a signal success. The winning ram and champion male of his breed is one of the best rams of his age seen for some years. Ram lambs, in pens of three, had as winners a beautiful trio, evenly matched, with good tops and heads, owned by J. T. Hobbs. In single ram lambs, J. T. Hobbs again led, and correctly so, for his is a choice lamb of scale and spread. Yearling ewes saw J. T. Hobbs win first and second places with six grand ewes, mellow to the hand, with great spread and fleece. They were indeed choice ones, more especially so the first-prize pen, which were made the champion pen of females. Ewe lambs again had the Maiseyhampton flock at its head, and this was a beautifully even and well-grown trio. The flock ewe class was a really good one, for J. T. Hobbs' winning pen were of rare style and merit. The great scale and good color of D. F. Moore's pen ran the winners close. Ewe tegs, in full fleece, were a grand lot, particularly H. W. Stilgoe's pen.

To strike off West—to Barnstaple—Devonshire show is notable for three things, its Devon and South Devon cattle, and its pretty dairy-maids. Devon cattle were strongly represented. In old bulls, Bryanston Amber, oldest of the lot, well deserved premier award, being shown in the pink of condition, by Viscount Portman. Viscount Portman also led in two-year-old bulls with Marmion, one of deep, strong carriage, and typical head. There were fourteen in the young heifer class, which was of exceptional merit. L. H.