fed to a cow. When I say bran, I mean either rye or wheat, but I like rye, best. The effect of cottonseed meal on the butter is to harden it, to give it a good texture, and a fine, nutty flavor. Linseed meal has quite the opposite effect, and palm nut meal will make the butter soft, and greasy too, although it largely increases the butter.(1) But it is necessary to watch a cow very closely when feeding cottonseed, and never to give any of it within two months before calving, or within ten days afterwards, and then begin gradually. Two ounces a day is quite enough for a calf under six months old, and indeed I have never yet found it of any advantage to a calf, while it can have corn and bran; I avoid using it for any animals except cows, or for fattening a beef animal.

The English feeders give as much as 12 pounds a day of cottonseed meal to their beeves, but as this is fed with turnips and straw largely, it might be quite safe to use this even for a three-year-old—of course gradually leading up to a full ration. The cake is made at the oil mills in the South, and J. L. could no doubt procure it through any of his local merchants who have correspondents at Charleston, S. C., Memphis or New-Orleans, where it is made largely. It comes from the mills in small, flat, oblong, cakes, which can be easily broken up and ground in a common farm mill, or in a country mill where corn in the ear is ground. It costs at the mills about $20 a ton, and retails at the North at about $30, bags included. It is somewhat surprising that in view of the great interest existing in regard to this feeding stuff, we do not see it prominently mentioned in the advertising columns of the COUNTRY GENTLEMAN, but it may be perhaps because nine tons out of every ten made in this country are shipped to England, where it is very popular for feeding to fattening cattle, and making "baby beef" and mutton.

I have not learned all this without paying dearly for my experience, as I very early lost a valuable thoroughbred cow by an attack of garget from feeding cottonseed meal in a forcing experiment, and no more than four quarts was used in the day at two feeds. The effect was to cause the udder to become hard and the milk to cease, and when this trouble was removed by a long course of treatment, the udder gave only blood. Since then, I have had occasional trouble from the stupidity of hired men who, knowing it was rich food, supposed four quarts would be twice as good as two, and so enlarged the quantity, or fed it to pigs, and killed them very quickly. Finally I mixed one ton of meal (34 bushels of corn ground), a ton of bran, or wheat sharps, as I could get it the most conveniently, and a ton of cottonseed meal, very thoroughly on a floor and then put it into the bin, and since then have had no trouble. Three quarts of the mixture is the regular feed when the cows are in full milk in the winter, which is my dairy season

Bergen County, N. J. H S.

(1) Bosh, about linseed making butter soft! A. R. J. F.

Culture of Pansies.

To obtain choice, large blossoms, pansies require very rich soil in a somewhat sheltered location. A bed which has been used as a hotbed the previous season and left over makes an excellent place for them. Either of the following methods of growing plants will be found successful: Sow the seeds in a box of rich soil about the first of April, and set in a south sunny window. About the middle of May transplant them into the bed where they are to blossom. Another way is to sow the seeds in a bed, where they are to blossom, about the first of September, and on the approach of freezing weather cover the bed with strawy manure. Or, they may be sowed in any bed of good soil and treated in the same manner. They will come out fresh and strong in the spring, and can be left to grow, or may be transplanted to any desired location. Good seed, rich soil and good care bring fine blossoms.

W. F. WHITE

FALL MANURING OF MEADOWS.

EDS COUNTRY GENTLEMAN—The fall and winter application of manure has been recommended, and is more or less practiced, especially the fall application, the only objection being the necessity of keeping the manure over summer. Even this is found to pay, as it favors early application in autumn, which starts the grass and stimulates the growth later, manure and grass forming a twofold protection, with a better start in the spring. This is one of the most important points in grass culture, especially that of meadows, for the month of May decides the success of the hay crop in the Northern and Eastern States, especially a belt between the 42d and 44th parallels. The reason is clear; in a dry time early in the season (which is also usually a cold one), grass fails to start well, and does not spread enough for a thick set, so that the stand is comparatively thin and short. This occurred two years ago, and largely lessened the hay crop. There was hardly an average of half a ton of hay per acre, many fields not paying for harvesting. These last were almost invariably on poor soil. But even rich land disappointed. The best success was where fall manuring was practiced, whether on poor or rich land—the best of all where a good quantity of manure was applied and well distributed. The fall application of the manure thickened and protected the grass, and the stimulating effect sustained it during the trying time in May, keeping the ground moister, and pushing the growth more rapidly when moist weather favored. The spring frosts also have less chance; in well-drained soil none.

I know of no way in which manure can be used to so much advantage as on meadows in the fall, say in September. This gives a chance to start the growth well. The next best way is to apply in the winter and spring, and spread from the sleigh or wagon, doing the work carefully, for it is highly important to spread evenly, so that the entire surface of the land gets the strength, as the rains and the melting snows wash it out before the brush, drag or harrow, at the opening of the season, can be used. Some farmers here make it a business to apply manure on their meadows in the spring, after the spring floods have subsided. This is done on the river flats to prevent the carrying away of the manure by the water. Whether the hay is as well relished by stock may be a question, though I hear no complaint. Those who practice this way hold it in high esteem. It lacks, however, the start given the grass in the fall, and the protection in the winter which fits it much the better to withstand the May drought. Should May be favorable, the treatment will not be lost, as the grass will be proportionally heavier, except on rich land with a good sod.

There is very little meadow that is not profitably benefited by a good coat of manure, heavy enough to produce two cuttings, and with orchard grass three, in a season, securing each in a tender state, the thick growth favoring a large yield, and the quality, especially for milch cows, being superior. Some of our dairymen, who use such hay, pronounce it superior to any other winter feed for milk, both for quantity and quality. Let us save our meadows from the mishaps of the seasons, and at the same time increase the profit. (1) F. G.

Fort Plain, N. Y.

(1) In following out our south of England system, dung is always applied to the meadows in winter. I doubt it being a good plan in this country, for it often happens that the ground is frozen hard under the snow, and when the thaw comes, the greater part of the dung would be washed into the ditches. I prefer the month of September for the purpose If dung is well made and covered with a few inches of earth, very little loss can be sustained by keeping it a few months: the ammonia is all fixed, so to speak. A. R. J. F.