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Timely Farm Suggestions

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Remedy for Horse That Rubs Tail

A READER wants to know "what will stop a horse from rubbing his tail."

It is believed that worms which attach themselves to the inside of the rectum may cause a horse to rub its tail. It is also probably true that filth in the hair and under the tail may cause the rubbing. Possibly mites and lice may also start the trouble.

If the trouble is due to pin worms in the rectum a whitish material may collect around the anus. To cause these worms to let go their hold on the lining membranes of the rectum we suggest injecting one pint raw linseed or lard oil with which has been well mixed two or three table-spoonsful of turpentine. It may be well to repeat this in three or four days.

Whatever the cause of the rubbing we suggest washing the rubbed parts and under the tail thoroughly, with tar soap and warm water. Then grease thoroughly with carbolyzed vaseline, or carbolic acid one part and lard twenty parts. In a few days wash the parts again and then apply daily a solution of one part of carbolic acid in fifty parts of water.

When the root of the tail has been rubbed, so as to irritate it or make it sore, an animal may continue to rub it after the original cause ceases to operate, and for this reason, if the horse can be tied so that he can not rub the parts it should be done, until the irritation entirely disappears.

Management of Grade Beef Calves

A MAN who has 40 native cows bred to an Aberdeen-Angus bull says some of the cows will give more milk than their calves require and asks: "Will it be best to let the calves run in the pasture all the time with their mothers or let them together at night and separate them the next morning?"

Unless the cows are good enough to pay to milk and handle as dairy cows and the owner is willing to go into the dairy business, we advise allowing the calves to run with the cows all the time. If the cows are treated as dairy cows then we would not let the calves run with their mothers at all, but would feed them on skimmed milk. If there are cows that give too much milk for one calf then we suggest, in case it is not desired to use these cows for dairy purposes, that young calves be bought and such cows be given two calves each. It is usually possible to buy such calves, and if the cow and the new calf be confined together for a short time and the cow tied so she cannot injure the strange calf, she will usually soon submit to it nursing her.

Of course, if a cow gives more milk than the calf can take, or than it ought to have, the cow should be milked or another calf placed with her, until her calf is large enough to take all the milk she furnishes. It is not often, however, that a "native" cow will give too much milk for her calf.

Making a Dairy Ration from Alfalfa Hay, Beet Pulp and Cottonseed Meal

A READER wishes a balanced ration for dairy cows giving 20 pounds of 4.5 per cent milk daily, from alfalfa hay, beet pulp and cottonseed meal, and asks if the best results can be obtained from these

feeds without silage. Also if dried beet pulp is a cheap feed at \$31 per ton.

With alfalfa hay and cottonseed meal, both rich protein feeds, it is necessary to use a considerable quantity of dried beet pulp to balance a ration for a cow giving 20 pounds of 4.5 per cent milk a day. This beet pulp is not a cheap feed at \$31 a ton. It supplies digestible carbohydrates at this price at about the same as corn at 90 cents a bushel, and as corn supplies more digestible protein and fat it is a cheaper feed at 90 cents a bushel than dried beet pulp at \$31 a ton. The following shows the digestible nutrients in 100 pounds of beet pulp and corn:

	Beet Pulp	Corn
Digestible Protein.....	Lbs. 4.1	Lbs. 7.5
Carbohydrates.....	64.9	66.8
Fat.....		4.3

No one would call corn a cheap dairy feed at 85 cents to 90 cents a bushel, and it is therefore, certain dried beet pulp is not a cheap feed at \$31 a ton.

If our correspondent had silage then his feeding problem would be easier and his feeding could be done at less cost, for then the high priced beet pulp could be cut out entirely for cows giving less than 25 pounds of milk a day.

If the ration must be made from alfalfa hay, cottonseed meal and dried beet pulp the following will about supply the required nutrients for one day for a cow giving 22 pounds of milk:

	Digestible Nutrients		
	Protein	Carbohy- drates	Fat
15 lbs. Alfalfa Hay.....	Lbs. 1.57	Lbs. 6.07	Lbs. .14
3 " Cottonseed Meal.....	1.02	.84	.29
10 " Beet Pulp.....		6.49	
Total.....	2.59	13.20	.43
Standard 22 lbs. Milk....	2.50	13.00	.50

Feeding Value of Corn Cob Meal

A READER asks: "What is the value of corn cob meal as compared with cottonseed meal as a feed for cows, mules, etc.?"

Corn cob meal has so little feeding value and what digestible nutrients it has are so different from the most important nutrient in cottonseed meal that there is no comparison in their values. Such unlike things cannot be compared. For supplying digestible protein a pound of cottonseed meal is worth about 75 pounds of corn cob meal. For supplying digestible carbohydrates a pound of corn cob meal is worth about two pounds of cottonseed meal, and for supplying digestible fat a pound of cottonseed meal is worth about 10 pounds corn cob meal.

Corn cob meal must be ground fine, which is difficult to do, to be of much feeding value, and it is doubtful if it should be fed in any but very small quantities to horses and mules doing hard work. For cows, which can handle such feeds with a large content of fiber and low feeding value to much better advantage, it is probably about equal to cottonseed hulls in feeding value; but it is doubtful if cattle would eat corn cob meal as well as cottonseed hulls, if fed in large quantities. We do not think it will usually pay to grind corn cobs alone for feeding. When ear corn is ground the cobs being of some value and mixed in the proportions in which they naturally occur in ear corn, may

be worth grinding, since by grinding grain and cob together the trouble or expense of shelling the corn is saved.

Preventing Losses in Barnyard Manure

A READER, after stating that he uses straw and leaves in his barnyard, writes as follows: "We put the manure (mixed with the leaves and straw) under a shed and it seems to take a heat and burn. It becomes a very light color and pulverized very much. Does this hurt the fertilizer? If it does please tell me how to prevent such."

Our reader does well to use leaves and straw that the stock, by tramping, mix with the manure, but there is some question as to whether he would lose more by leaching if left out than he does by the fermentation (fire-fang) under the shed. In the leaching outside he would lose more or less of all the plant foods, whereas he loses only nitrogen by the fermentation under the shed.

When manure goes through the fermentation described the loss of nitrogen into the air is large and serious. This heating can be prevented by keeping the manure under the shed packed as solid as possible and wet down well. Mixing ground phosphate rock or acid phosphate with it will also help to hold the nitrogen set free by the heating or fermentation. When the manure is tramped down solid by livestock under shelter and phosphates mixed with it there is practically no loss.

If the manure under the shed cannot be kept wet enough to prevent fermentation, or if stock cannot be kept on it to keep it packed down firmly, then it should be put on the land as quickly as possible after it is made, or gathered up and put under the shed. In other words, it should only be kept under the shed when the land is so wet that the manure cannot be put out. The quicker it can be gotten on the land where wanted the better; but, of course, manure should not be put on top of the soil and left there, if the land washes badly. On such land it should be worked into the soil as quickly as possible.

Protein May Be Reduced to Terms of Nitrogen by Dividing by 6.25

WHAT is the fertilizer analysis of cottonseed meal which has the following analysis?

Protein.....	36.0 per cent
Fat.....	0.5 per cent
Carbohydrates.....	30.0 per cent
Crude fiber.....	12.0 per cent

"What would a mixture of 1,000 pounds of such meal with 1,000 pounds of 16 per cent acid phosphate analyze?"

The only statement in this feed analysis which throws light on its fertilizer value is the per cent of protein. There is 16 per cent of nitrogen in protein; that is, 16 pounds of nitrogen in 100 pounds of protein. Stating the matter in another way, to find the nitrogen in cottonseed meal when the protein is given, divide the per cent of protein by 6.25 and the result will be the per cent of nitrogen.

A cottonseed meal containing 36 per cent of protein has 5.76 per cent of nitrogen. This is a low grade meal for which the only excuse is the adding of too many hulls. That this is true is supported by the high per cent of fiber, 12 per cent being nearly double the fiber which cottonseed meal should contain, and carbohydrates; as well as by the low per cent of protein. If the buyers would reject such meal at any price the practice of excessive adulteration with hulls would soon stop.

We have no means of knowing the per cent of phosphoric acid and potash in this particular meal but for the

purpose of answering the next question will assume that it contains 2.5 per cent of phosphoric acid and 1.8 per cent of potash which will certainly not be far from right. On this basis, 1,000 pounds each of this meal and 16 per cent acid phosphate would make a fertilizer of the composition or analysis shown below:

	Nitro- gen	Phos. Acid	Potash
1000 lbs. Cottonseed Meal	Lbs. 57.6	Lbs. 25.0	Lbs. 18.0
5.76-2.5-1.8			
1000 lbs. Acid Phosphate		160.0	
16 per cent phosphoric acid			
2000 lbs. Totals.....	57.6	185.0	18.0
Per Cent.....	2.88	9.25	.9

Using only figures representing the per cent of the different plant foods, the analysis of such a fertilizer would be stated thus: 2.88-9.25-.9; which means, 2.88 per cent of nitrogen, 9.25 per cent of phosphoric acid and .9 per cent of potash.

Lespedeza Hay Compared With Cottonseed Hulls

A READER writes that his neighbors are "selling lespedeza hay for \$15 a ton and buying cottonseed hulls at \$7.50 per ton. The hay has to be hauled to market and the hulls hauled back to the farm. Give us the feeding value of each for cattle."

The following shows the digestible nutrients in 100 pounds of lespedeza hay and cottonseed hulls:

	Lespe- deza Hay	Cotton- seed Hulls
Digestible Protein.....	Lbs. 9.1	Lbs. 0.3
Carbohydrates.....	37.7	33.3
Fats.....	1.4	1.7

There is no satisfactory way of comparing feeds like these. Even so called feeding tests are not satisfactory. If an animal were compelled to live on one of these feeds alone, then the lespedeza hay would probably show a greater superiority than shown by the prices quoted. This would certainly be true if the animal was young and required protein for growth. But when the feeds are used in combination with others, especially when cottonseed meal is used with the hulls and furnishes protein at a low cost, the results may be different.

In feeding value, the lespedeza hay is worth nearly double cottonseed hulls, especially for feeding young cattle and dairy cows, and for feeding these, we would advise keeping enough of the lespedeza hay to furnish at least half the roughage for the milk cows and practically all of it for the young growing cattle. For mature, dry cattle, with cottonseed meal at present prices to furnish the protein, we think there may be some advantage in selling the hay and buying hulls, unless the cost of marketing the lespedeza and hauling the hulls to the farm is considerable, especially if the manure made in feeding the lespedeza is given the usual poor attention. If, however, the manure is well taken care of and the cost of marketing the lespedeza and hauling the hulls amounts to as much as two or three dollars a ton, we think it best to feed the lespedeza hay on the farm, rather than sell it and buy hulls.

As we have often stated, no money value placed on the different nutrients gives a satisfactory method of comparing feeds, nor is the method of estimating the heat units satisfactory; but allowing three cents a pound for the digestible protein, one cent a pound for the digestible carbohydrates and two and one-fourth cents a pound for the digestible fats, a ton of lespedeza hay has a value of \$13.63 and a ton of cottonseed hulls a value of \$7.58.