Pigs need Vitamin B

SMYRNA, Del — Slow growth rate, premature or stillborne litters, anemia and diarrhea are just a few of the problems associated with B vitamin deficiencies in swine.

The B-complex vitamins include riboflavin or B2, pantothenic acid, niacin, vitamin B12 and choline

Deficiency symptoms in swine are similar for many of these vitamins, so on the farm it's often hard to know just what the problem is, says University of Delaware extension livestock specialist Richard Fowler.

Riboflavin or B2 must be added in a crystalline form to the feed because most cereal grains contain very low levels of this vitamin. The enzyme systems of the body rely on it. When it's deficient, poor growth, poor feed intake, skin lesions and stiffness may occur.

Sows exhibit little or no sign of heat and have a poor conception rate if they do cycle. Pigs born from B2 deficient sows may be premature, dead or weak.

Recommended levels of this vitamin are 1.5, 1.2 and 2 milligrams (mg) per pound of ration, respectively, for the starter diet, grower-finisher diet and breeding herd ration.

Deficiency symptoms of pantothenic acid include a high-stepping or wobbly walk called goosestepping. Lower fertility, poor growth, and diarrhea are other signs of low intake.

The breeding herd and starting pigs should have eight mg of pantothenic acid per pound of diet. The growing-finishing pig needs six mg per pound of feed.

Niacin is a B vitamin related to one of the protein building blocks, the amino acid tryptophan. Niacin is plentiful in corn but unavailable to the pig because it occurs there in a form he can't metabolize. Symptoms of deficiency include hair loss, skin inflammation, vomiting, diarrhea, and slow growth

Good natural sources include alfalfa meal and pasture. Breeding stock and pigs up to 60 pounds should have 10 mg per pound of diet Growing-finishing swine require eight mg per pound of diet

Animal products are rich sources of vitamin B12 but plant products are poor sources. Anemia and slow growth result when this vitamin is left out of the diet. The requirement is very low and is stated in micrograms. (A microgram is one-one thousandth of a gram)

Since there are 454 grams in one pound, we're dealing with a very small but essential amount. Breeding animals and young pigs require 10 micrograms (mcg) of B12 per pound of ration.

Growing-finishing pigs need six mcg per pound

The last B vitamin is choline

Recent research shows that this ingredient is more important than once believed. In the past the choline contest of natural feeds was considered adequate for pigs. Choline deficiency has been suggested as the cause for spraddle legs in pigs, but this has not been proven. The trait appears to be due more to heredity than nutrition

One pound of breeding ration should contain 250 mg of choline; starter diets, 86 mg, and finisher feeds, 50 mg per pound of complete feed.

If you want to check the B vitamin content of your premix and ration program, compare the tag and final feed with the requirements. For example, suppose your premix feed for getting pigs to 60 pounds contains 6,500 mg per pound of niacin.

Seven pounds of this premix are used to make one ton of feed

There are 45,000 mg of niacin per ton of finished feed. One pound of feed contains 22.75 mg (45,000. divided by 2,000). The recommendations call for 10 mg per pound of diet. So the feed contains sufficient niacin.

Ideally, 'premixes should be packaged with the vitamin and mineral components separated Certain minerals such as iron can reduce the potency of some vitamins.

It's time to control thistle

WESTMINSTER, Md. — If you're going to bring perennial and biennial thistles under control, the time to start is now—during the period from mid-April to late May.

So says Ronald L. Ritter, Extension weed control specialist and assistant professor of agronomy at the University of Maryland in College Park.

Canada thistle and the musk or nodding thistle are the culprits which Ritter has in mind. He lists three methods which can be used for their control. The procedures are:

—Mowing at least four times per year;

—Continuous cultivation, including plowing and disking,

--Periodic chemical applications.

Ritter commented that frequent mowing will prevent seed-set, rather than killing the thistles directly. Thus, it is primarily effective for controlling biennials like the musk thistle, which spreads only by seed.

To work well against the Canada thistle, mowing should be combined with herbicide application. Even then, the procedure is apt to require at least two years.

Growing a perennial forage crop--particularly alfalfa--on thistle-infested land also fits well with the mowing procedure. Luckily, alfalfa withstands frequent mowing better than thistles can. If the thistle infestation is heavy, try a year of "bare ground" control before seeding alfalfa.

Continuous cultivation for thistle control depends upon starting at the critical early bud stage, about four to six weeks after emergence of the first plants in the spring. This is the period when food reserves in the roots are at their lowest point of the year.

Up to 90 percent of a Canada thistle infestation can be eliminated in one season by beginning thorough cultivation at the critical beginning point in the spring and repeating the process every 21 days throughout the growing season.

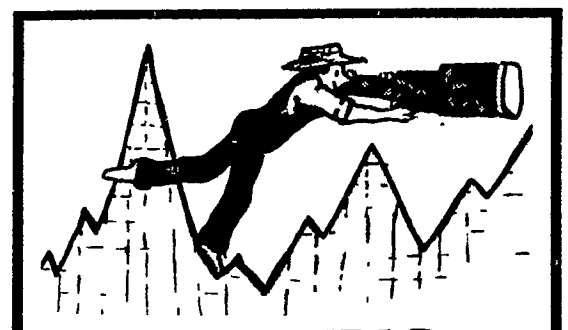
For chemical control of thistles and other broadleaf plants, Ritter recommends 2,4-D, dicamba (Banvel), amino triazole (Amitrol T), or picloram (Tordon). Listed in progressive order of potency, from low to high, these herbicides do not control grasses which might be present in the same area.

To combat both thistles and grasses, the Maryland Extension specialist recommends glyphosate (Roundup)

Homeowners and most farmers should stick with 2,4-D or Banvel, Ritter advises, since they are cheaper and less dangerous to handle than the other herbicides mentioned. In any case, be sure to follow the label directions carefully.

Spring and fall application of a recommended herbicide should take care of the musk or nodding thistle in one growing season, Ritter commented. But getting rid of the Canada thistle may take two years of twice-a-year chemical treatments.

The best time to apply herbicides is before the thistle flower stalk forms. Late April to early May is appropriate for the first application in most of Maryland. In the mountain areas of western Maryland, the season is usually delayed two to three weeks.



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