

The growing plant can't tell the difference between a nutrient derived from so called natural sources such as manure or soybeans, or from manufactured fertilizer.

But with the publicity about nitrates in drinking water, manufactured fertilizer has somehow been regarded as more to blame for environmental problems than nutrients produced by farm animals. But it isn't true. Where there is a heavy concentration of animal agriculture, levels of nitrogen and phosphorous are more pronounced.

One fact often overlooked by the environmental media is that in the 1930s and 1940s, prior to the use of commercial fertilizers, drinking water wells in many parts of the United States exceeded the current drinking water standard for nitrogen. So the situation has not changed much over the last 50 years. But with the advances in technology in agriculture, we have the luxury of an abundant food supply. And therefore, we can afford to be more critical of any excessive application of plant food on our fields.

From a practical viewpoint, as well as to be more conscious of the environment, farmers should use the best agronomic management practices. They should use conservation tillage, no-till, ridge planting, strip tillage and crop rotations. In addition, they should manage irrigation and use the proper placement and proper timing of fertilizer applications. Where soil tests show excessive nutrients, they should manage manure and fertilizer applications to meet the needs.

No longer, can the farmer say, "I'll put a little extra fertilizer on the fields for good measure." In fact, he may need to reduce the number of animals on his farm so he does not need to make excessive manure applications to his fields.

Along with proper management of nutrient application, the farmer should also consider the use of grass waterways and vegetative buffer strips where needed. When you reduce soil erosion, you reduce nutrient losses and keep them at home where they belong.

The challange is to make sure enough nutrients are available to grow the crop but not more than enough to harm the environment. With this balance of manure and commercial fertilizer applications along with good cropping methods, agriculture will truly be sustainable. And so will the American food supply.



Saturday, July 22

Chester County Country Fair, Nottingham Park, Nottingham, 11:00 a.m. to 8:00 p.m.; rain date July 23.

Jefferson County Holstein Club sale, Jefferson County fairgrounds, Sykesville, noon.

Lancaster County goat field day, Jacob Fisher's Windy Hill Goat Farm, Manheim, 1:00 p.m. to 4:00 p.m.; call 394-6851 for additional information.

Shippensburg Community Fair, Shippensburg; runs through July 29.

Bradford-Tioga Jersey picnic, Bob Duncan Farm, Mansfield.

Tioga Holstein Club Strawberry Festival, Dean Baity

Farm, Covington, 7:30 p.m. Sunday, July 23

Clarion County Fair, New Bethlehem; runs through July 29.

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General Manager

Shippensburg Fair, Shippensburg Fairgrounds

Monday, July 24 Berks County 4-H Dairy Roundup, Reading fairgrounds, Reading, 1:00 p.m. fitting and showmanship; type show at 9:30 a.m.

Conneaut Valley Fair, Conneaut; runs through July 29.

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North American Dairy Sheep

runs through July 28. Rodale Research Center Field Days, Rodale Research Center,

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Lancaster County Agriculture Agent **To Make Summer** Alfalfa Seeding

Early to mid-August are good times to seed alfalfa, particularly in this part of the state. When seeded during the period of good soil moisture, the plants have time to become established before freezing weather arrives.

Alfalfa is still one of our major forage crops and deserves the very best of planning and management. Band seeding is the best method to make this seeding.

Weed control is a "must" with a straight seeding without a nurse crop. Many stands are injured by poor weed control during the first year. Refer to the 1989-90 Agronomy Guide for assistance on weed control practices. Be aware that alfalfa should not be planted in ground that has been treated for corn weed control during the past year, especially fields sprayed with atrazine. Alfalfa is an excellent forage crop; however, it does require attention and good management.

To Store Round Hay Bales Inside

Recent data collected in Oklahoma illustrates the need for hay storage structures, even for round bales, according to Chester Hughes, Extension Livestock Agent. Bales stored under cover on pallets or in an enclosed barn had less than 2% dry matter loss. When compared with the 13% loss for bales with direct ground contact and without curves, it is easy to justify a storage structure. Penn State research during the late 1970's gave similar results of 3% and 14% loss for inside and outside storage, respectively. These numbers do not consider the negative impact of outside storage on forage quality, which can be even more important than the quantity loss.

In addition to the increased storage loss, feeding and handling losses are higher when round bales are stored outside. Research conducted in Missouri indicated that round bales stored outside uncovered had a 25% feeding loss. Comparable feeding loss for balcs stored inside was about 12%. Thus, a 13% reduction in feeding loss was attained by storing round bales inside.

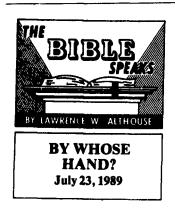
The combination of storage and feeding dry. matter losses can be cut in half by storing round bales inside rather than outside.

> To Fertilize **Strawberry Plants**

Most strawberry growers would

like to forget this year ... the excessive rain resulted in about a 50% crop. But, let's be positive about next year. In order to realize the maximum yield next spring, we suggest the plants be well fertilized this summer. An application of 20 to 30 pounds of actual nitrogen per acre over the plants during July or August should give strength to new runners and increase fruit yield. This application should be made when the plants are dry to avoid burning the leaves. In the home strawberry patch use about one-fourth pound of ammonium nitrate per 100 square feet of bed space. Good care of the strawberry plants this summer will bring about better yields next June.

To Check Pets For Fleas Warm weather favors the deve-



Background Scripture: Judges 7 **Devotional Reading:**

Isaiah 43:1-13

During this country's Civil War, President Abraham Lincoln had great difficulties in getting Army General George B. McClellan to attack the enemy. No matter how many troops he had under his command, Gen. McClellan always believed that he did not have enough men.

It seems most unusual, then, to come across an incident where, instead of having too few to do the job, they had too many! Actually, it didn't have to do with the size of the Israeli forces, but with God's apprehension that the people of Israel would assume that they, not him, were responsible for the victory. He wants to help them throw off the yoke of oppression, but he knows that his help, unless recognized, may make them more, not less, unfaithful.

MY OWN HAND

Isn't that a common trap for many of us, too? How often have we in need, like the people of Israel, "cried for help to the Lord"? But let us get on top of the situation and in our exuberance we are likely to think: "My own hand has delivered me" (7:2b), or words to that effect.

So, Gideon continues to pare down the size of his forces until there are but 300 men left. In the face of the thousands of enemies, these soldiers of Israel are not likely to think that they won the victory on their own. It would be tempting to think that after Gideon overcame his initial skepticism over the angel's challenge that he

lopment of fleas and you will find them jumping right now. First of all treat the dogs and cats with commercial flea powders. Flea collars appear to do a good job against fleas but check the pet frequently because the skin of some animals becomes irritated by the material in the collar. For indoors, treat infesteed areas with ant and roach aerosols. Do not overlook the bedding of pets or their sleeping quarters. Sevin does an effective job in this area.

Because fleas often infest lawns in the summer, treat the grass with sprays or dust containing either Sevin or Diazinon. Apply these sprays according to the directions on the containers.

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became more daring and responsive. But when God assures Gideon that he has "given it (the Midianite camp) into your hand," God caters to Gideon's doubts: "But if you fear to go down, go down to the camp with Phurah your servant; and you shall hear what they say and afterward your hands shall be strengthened to go down against the camp" (7:11), And Gideon takes him up on the offer and does just that!

What fascinates me about this story is that God is so accommodating to Gideon's skepticism. He knows what kind of man Gideon is and fashions his approach appropriately. Nor does he seem to mind it that Gideon is so cautious. There is not one word of reproach from the Lord when Gideon requires more persuasion.

WHAT COMES FIRST? Apparently God also knows what Gideon is capable of. God knows that once he overcomes his customary caution, Gideon will be everything that the angel intended when he said, "The Lord is with you, you mighty man of valor." Potentially, Gideon was "a mighty man of valor."

But let us not lose sight of the most important part of that situation: "The Lord is with you..." That comes first-because God is with him, Gideon can be the man God knows him to be. But the probability of his success rests upon the fact that God is with him and it is the Lord who will deliver their enemies into his hand. With God's hand strengthening him, he can accomplish the mission, but it is God's hand that will deliver Gideon and his people.

When, while lying in hiding, he hears the Midianite's dream of God helping the Israelities, Gideon is convinced at last and goes back to tell his troops: Arise; for the Lord has given the host of Midian into your hand" (7:15b). There comes a time when, after our honest doubts and questions, we need to make the plunge of faith and do the work God has placed in our hands.

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Robert G. Campbell

July 25. Jefferson Township Fair, Mercer; Kimberton Fair, Phoenixville;

Troy Fair, Troy; runs through July

Tuesday, July 25

Symposium, University of Minnesota, St. Paul campus;