

Guest Editorial

Field Corn - Stalk Breakage

One of the most annoying problems facing corn growers today is stalk rot or stalk lodging. Since it seems to have no fixed pattern it gets blamed on any one of a dozen things — and the funny thing is that any of these reasons could be a contributing factor.

Stalk rot can be caused by many organisms but most of the damage is caused by three common soil fungi. These fungi live through the winter on old corn stalks, grassy weeds, grain and sorghum stubble. In late summer the fungi produce spores which infect ripening corn plants. These spores can get into the plant many ways; injured or diseased roots, injured or weak stalks, juncture of leaf and stalk, and through thin-walled stalks. In 1970 and 1971 stalk rot was also caused by heavy infection of Southern Leaf Blight, "T" strain.

Stalk rot organisms tend to build up under continuous corn culture, so lodging will be far more severe in fourth year corn than in first year plantings. A variety could get a bad name for itself if it went down in a fourth year field, while the variety following alfalfa next to it could be standing perfectly. I am not saying don't plant continuous corn, but I am saying to expect more stalk rot and try to do every little thing you can to overcome it.

If you possibly can, grow soybeans, clover or an alfalfa sod in the rotation — this will break up the cycle of corn and reduce the number of organisms. Small grains, sorghum-sudans and grass sods do not break the rotation, as stalk rot organisms feed on all of these.

Any injury will give the fungi an open door to walk right in. How many growers are willing to blame stalk rot on Northern corn root worm, garden centipedes, wireworms, root aphids, root pruning from close cultivation, corn borer, army worm, and hail? But all of these injury openings are sources of infection.

Stress factors also aid stalk lodging — dry weather which causes internal cell breakdown; continuous wet weather that causes many roots to rot and lets the plant blow over in a wind storm; high plant populations that make weak, thin stalks and shading of the lower leaves; and chemical injury, such as is often seen with

2, 4-D, which restricts or eliminates brace root formation.

Your fertilization pattern is also a big factor. High rates of nitrogen, not balanced with phosphate or more important, potash, can lead to real trouble. While not perfect, if you raise your potash rate as you raise your nitrogen, you tend to hold down stalk rot to a decent level. Low ph can cause poor root development, increasing lodging, if the plant ever grows big enough to lodge.

Hybrids, of course, vary in stalk rot resistance, but cause far less than the 100 per cent that farmers claim. Most hybrids today are bred for stalk rot resistance, but farmer use changes the results to a great degree.

Stalk rot is an old age or senile disease, and is much worse if the variety is maturing in the hot, humid days of September. Two hybrids may have the same stalk rot resistance, but if one is short season and matures when it's hot and humid it can go over 100 per cent while a rather late corn that matures just as the frosts arrive can be 100 per cent standing. This late corn could be in trouble from chaffy ears, if frosted.

The above points are certainly not all the reasons for stalk rot or lodging, but probably the most important. As a farmer, you can reduce stalk rot and lodging if you try to combine the following growing practices:

A. Plan a plant population that is ideal for your area, soil type, and variety. Narrow rows with plant population remaining constant is good.

B. Use a balanced fertilizer program. Keep potash high if you are going for maximum yield. Maintain proper ph.

C. Break up continuous corn with soybeans, clover or alfalfa, as often as possible.

D. Reduce insect damage.

E. Plant a full season hybrid that uses the full growing season. A variety that matures September 1 and the growing season ends October 1 is asking for stalk rot.

F. Harvest your corn as soon as it is mature — delayed harvesting could mean lodging.

G. Plant as resistant a hybrid as possible.

H. Pray that the hurricanes wait till December.

Grassroots Opinions

LA CONNER, WASH, PUGET SOUND MAIL. "For years we have been infuriated by the excessive tax burden on the property owner—sometimes it has reached the point where we even felt like voting against the most needed and worthwhile local projects. Most of your taxes are services for 'people' rather than 'property owners'. Under our present tax system 'taxation is assuming the ability to destroy.' Some have not made home improvements because that would mean higher taxes—some of the elderly in desperate circumstances have been careful and hard earned plans for their sunset years go out the window. Whether you are a farmer, businessman or home owner, you are in the same boat on this matter of excessive property taxes. . . It is time that 'people' (the major recipients of services) pay a fair share of the cost, instead of property owners carrying an unfair burden."

ALMA, GA., WIREGRASS NEWS: "Scientists agree that the earth is at least 4.5 billion years old. However, there are varying theories as to its origin. Some have suggested it was created from a great cloud of dust. Others would have you believe that it was created from a piece of

the sun. Frankly speaking, we still prefer the one that begins. . . 'In the beginning God created the heaven and the earth.'"

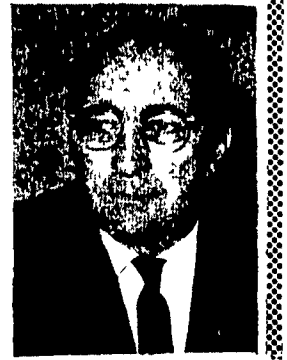
PARKERSBURG, W. VA., NEWS: "The railroads are moving ahead to meet their transportation obligations to the limit of their present capability. The capability could be vastly increased if Congress would move with equal dispatch in the field of transportation legislation."

KENYON, MINN., LEADER: "It was interesting to note during the astronauts' stay on the moon that the lunar rover that carried them to their various destinations cost approximately \$10 million to develop and build. It has to be a consolation for those of us who struggle to keep an automobile running, that even at the price, a fender fell off the rover."

COMSTOCK, NEBR., NEWS: "There's a new doll on the market. It's called a welfare doll. You wind it up and it doesn't work. How true! How true. Certainly there are people who are deserving of welfare, and they should have it. But on the other side of the fence are those who do not need welfare but apply and get it just to keep from working. There should be some way of regulating this."

NOW IS THE TIME . . .

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To Keep Safety Records

Farmers who have employees should be sure to keep records of all hired workers who are injured or sick. It's now required by the Occupational Safety and Health Act (OSHA). Farmers with employees should have four forms: a safety and health protection poster, a list of the dates of occupational injuries and illnesses, a supplementary record of injuries and illnesses to employees, and a summary of all occupational injuries and illnesses. These forms are a part of the U. S. Dept. of Labor booklet that has been sent to many farmers; if not received one may be secured by writing to U. S. Dept. of Labor, Regional Office, Room 410 Penn Square Building, Juniper and Filbert Streets, Philadelphia, Pa. 19107. This is a new law during the past year and farmers are included. Compliance is necessary to avoid penalties and trouble.

To Be Alert For Leaf Hoppers

Farmers are urged to keep an eye open for leafhoppers in alfalfa. They are increasing in numbers and are responsible for yellowing and stunting of the new growth. If you can get more than one leafhopper per sweep with an insect net, or your hat, then spraying is needed. Methoxychlor at the rate of ¼ pound per acre when new growth is 4 to 6 inches high is suggested. In many years these insects have hurt the second and third cutting of alfalfa, so some spray application will improve the yield.

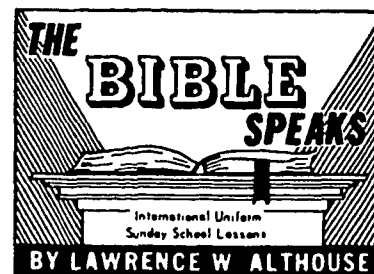
In most areas moisture conditions are favorable for rapid growth of the third cutting when insects are controlled.

To Keep Fertilizers From Animals

Fertilizer is a very common input to modern farming, but it should be kept away from all farm animals. Nitrogen and potassium salts in fertilizer are toxic to animals and will poison them. We offer these suggestions at this time: (1) Avoid leaving any kind of fertilizer where animals can reach it; (2) Clean up spilled fertilizer; (3) destroy empty bags; they may contain enough to kill some animals; (4) After fertilizing a pasture, wait until at least ¼-inch rain has fallen before turning in the livestock. The safe handling and storing of chemical fertilizer is just as important as any other agricultural chemical.

To Prepare For Summer Seedings

Early August is still one of the good times to make a new seeding of alfalfa. (Early spring is the other.) In low land where the water stood for several days during June and early July, the alfalfa may be killed or stunted; the first part of August would be a good time to till these areas and make a straight seeding of alfalfa. In some established stands there are areas with poor stands that can be renovated and re-seeded at this time. Permanent pastures may be seeded down to grass mixture during late August and early September with good results. Weeds should be expected and some herbicide used either before or after seeding the alfalfa. Small weeds are easier to kill rather than to permit them to get 6 to 12 inches high in the new alfalfa stand.



AT THE ROOTS

Lesson for July 30, 1972

Background Scripture: 1 John 4:13-19.
Ephesians 3:14-21
Deviational Reading: Philippians 3:7-16.

When I travel I am often amused at the difference it makes when someone learns that I am a clergyman. For some people it is an obvious barrier. For others, it is sometimes a cue for insincerity. I become aware that they begin



Rev. Althouse

to tell me the sort of thing they think I want to hear. For still others, it seems, I become an object of curiosity. There are some people, however, who seem genuinely relieved that they can speak with someone about matters of faith, someone who shares the same allegiance and commitment as they. It becomes apparent that they are hungry to talk to someone who shares their Christian faith.

By this we know

Apart from clergy collars and nuns' habits there are few signs to indicate who is and is not a Christian in their commitment. True, some people wear crosses around their necks and in their lapels, but like the old Sunday school attendance pins these seem to be fewer and fewer these days. It is hard to know when a person is a Christian.

In 1 John, however, we find

that there is really but one criteria — on that can be used in identifying Christian discipleship: "By this we know that we abide in him and he in us, because he has given us his own Spirit" (4:13). There are no badges to wear, no secret handshakes and signs, no banners to carry, there is only love. Love is one criterion for identifying the person who "abides" in Christ.

Unfortunately, a person can call himself a Christian, belong to a church, and even wear a lapel cross, but this is no guarantee that he or she is truly a disciple. For Christianity is not a matter of outward signs and garments, but of an inner depth reality. If a person has not love, all the badges and banners in the world cannot make him a follower of Jesus Christ.

The fullness and the depth

In Ephesians, the writer calls for a faith that is more than externals. He calls for a faith that has "breadth and length and height and depth" (3:18). His prayer is that the reader may "be filled with all the fullness of God" (3:19). Once again, however, the key to a depth dimension faith is love. The writer's prayer is that the reader may have power ("strengthened with might" - 3:16), faith (3:17), understanding ("power to comprehend" - 3:18), but all of "fullness" is "rooted and grounded in love" (3:17). Above all else, the Christian must know "the love of Christ which surpasses knowledge" (3:19).

When we meet someone who has this fullness, this depth dimension, it soon becomes apparent because deep inside at its roots there is Christian love that shines through everything.