

# Look at more than yield when picking seed

**DE KALB, II** — The main trait farmers look for when selecting a hybrid or variety is yield. Wayne Fowler, Director of Agronomic Services for DEKALB-PFIZER GENETICS says, "while yield is most important, other agronomic and economic factors must be evaluated as well."

Whether corn, soybeans or sorghum, one basic factor farmers almost automatically consider when choosing hybrids or varieties is the maturity range appropriate to their growing areas, says Fowler. The correct maturity range is important in order for hybrids and varieties to achieve maximum performance. When comparing yields, growers also should be certain to match similar maturity.

Another factor growers should examine is the hybrid or variety's

performance consistency through a wide range of weather conditions in their area. Fowler says, "a good method of measuring this consistency is by using data from the DEKALB-PFIZER Field Analysis Comparison Trials (FACT)." These FACT plots, as well as university trials, provide an excellent way to compare hybrids or varieties grown under the same conditions.

Prior to selecting hybrids or varieties, farmers should determine if the grain will be used for some special purpose such as food processing, livestock feed, silage or grain for market. For example, if sorghum grain will be used for feeding purposes, a yellow endosperm hybrid should be chosen if available in the correct maturity range, Fowler says.

## Corn hybrids

To harvest optimum corn yields, sturdy stalks and roots are critical. "Without these traits, harvested yields probably will be disappointing," the agronomist warns. However, insects, weather, lack of fertility and disease also may contribute to poor standability, he explains. Growers should look for specific reasons for lodging problems before blaming the hybrid.

An economic consideration connected to standability is cost of drying. By selecting hybrids with strong stalks, farmers who choose to utilize long field drying to achieve lower drying costs, reduce the risk of heavy pre-harvest losses.

Rotation procedures on a grower's farm strongly affect yield. In a five-year analysis of FACT management data comprising over 800 plots each, corn following soybeans outyielded corn after corn by 4.8 bushels per acre. Soybeans following corn outyielded beans after beans by 3.6 bushels per acre. When you calculate reduced costs and put a value on the yield increase, farmers find that the value of corn/bean rotation cannot be ignored. "Certain diseases or insects may be a problem in some continuous corn operations because they thrive on the favorable conditions created by using the same crop year after year," Fowler says. "One advantage of crop rotations is that alternate crops usually do not serve as host to the pests of each other." The previous crop has no influence on the occurrence of certain other diseases and insects. If a pest is known to be an economic problem in a field or area, hybrid selection should take this into consideration.

Germination and seedling growth rate also are important considerations when selecting a hybrid. Cold, no-till soils require hybrids that can germinate and establish quickly, Fowler observes.

Tillage and planting practices may affect seedling growth rate. Conventionally tilled soils warm earlier in the spring due to in-

creased sunlight interception and rapid moisture evaporation. The result is that a more favorable seedbed may be obtained than with minimum or no-till cropping practices. Thus, hybrids with average seedling growth rates may work better in conventionally tilled fields.

Another key factor in hybrid selection is tolerance to high plant populations. "Yield will be enhanced by using an optimum planting population, which is usually greater than most farmers use. This will vary depending on the hybrid, soil and growing conditions," Fowler says. However, when using high populations, a corn hybrid tolerant to population stress is required.

In economic terms, plant maturity and dry-down (the rate of grain moisture loss) also should be considered. "Escalating drying costs emphasize desirability of hybrids with fast dry-down," Fowler says. Many farmers tend to overlook what may be more important economically: fast drying hybrids allow for earlier harvest.

## Soybean varieties

A primary factor to consider is disease resistance. Wet weather in 1983 and 1984 contributed to an increase in phytophthora root rot, a major soybean disease in the Corn Belt. "Many soybean varieties have some resistance or tolerance to phytophthora," Fowler says. "However, variety selection for this alone is difficult because there are numerous races of the disease organism."

Another problem is soybean cyst nematode. "The nematode problem has increased and the disease has spread into new regions, making it difficult to obtain resistant varieties of the correct maturity," Fowler says. "Some nematode problems can be overcome with planned crop rotation."

Planting methods, such as solid seeding, also influence the variety chosen. Varieties whose plants have fewer branches and single stems are generally selected for narrow rows, Fowler says. This is because fewer branches are needed to shade the soil to conserve moisture.

## Sorghum hybrids

With the growing concern to reduce cost of production, sorghum farmers will find greenbug resistance and drought tolerance important considerations. "In areas where greenbugs are a problem, farmers can reduce spraying costs with biotype C and E greenbug resistant hybrids, the agronomist observes. Many high-yielding hybrids are available in a wide range of maturities that tolerate feeding by these insects and reduce or eliminate the need to spray.

Hybrids also should be tailored to expected moisture conditions. "Some hybrids develop deeper, more extensive root systems that can utilize the available moisture," Fowler says. In addition, some hybrids released in recent years offer mechanisms to reduce transpiration and regulate plant moisture under severe dry periods. These traits maximize whatever amount of moisture is available.

"Where freezing temperatures can occur early in the fall, sorghum growers should evaluate hybrids for post-freeze stalk quality, the DEKALB-PFIZER agronomist advises. "There are a number of top-performing hybrids which stand well even after freezes that cause some hybrids to fall and lodge."

Also, select for head types that allow fast dry-down and avoid head molds, but do not encourage bird feeding, Fowler cautions. Head exertion is another important factor for fast dry-down and ease of harvest. Hybrids are available that do not sacrifice high yields for these traits.

In areas where diseases are present, compare tolerance to disease in the selection process. The agronomist cautions tolerance to a specific disease should be considered only if the disease is present. Many diseases are no longer a problem because of bred-in resistance.

In all cases, Fowler says, the seed selected should be high germinating, clean and disease free. "The seed should have the quality that makes growers proud to pour it into the planter," he concludes.

## Tax mgt. tips given

**NEWARK, Del.** — Everybody talks about taxes. Farmers can do something about theirs if they take time now to inform themselves about details and procedures, says University of Delaware extension farm management specialist Dr. Don Tilmon.

To start with, estimate 1984 taxable income during December, he says. Become familiar with new tax regulations. Be aware of how changes in exemptions, deductions and nonfarm income will affect your personal tax situation. Also be aware of income adjustment opportunities such as IRAs, the marriage deduction and other items listed on lines 24 to 30 of Form 1040. Then MANAGE YOUR TAXABLE INCOME.

If this is a high income year for you, Tilmon suggests taking the following steps:

- \* Be sure all bills are paid by December 31. It may pay to borrow if necessary.

- \* Advance necessary purchases, such as grain or fertilizer. Have a business reason as well as a tax reason. Be sure to pay for a specified quantity at a specified price—in writing.

- \* Defer sales or delay billing when possible.

- \* Consider nontaxable trades rather than sales and purchases.

- \* Pay family help at going rates for work actually done. Your

children can earn \$3,300 before they must file or pay.

- \* Consider a Section 179 expense deduction—up to \$5,000 of machinery purchases can be expensed.

- \* Check the toolshed for capital purchases that never made the depreciation list. Some depreciation and investment credit may still be available.

- \* Consider electing "involuntary conversion" of cows sold because of diseases.

- \* Try income averaging—Schedule G, 1040

If this is a low income year for you, here are some steps to consider:

- \* Defer payment of current bills.

- \* Defer purchases.

- \* Advance sales if possible

- \* Forego trades in favor of sales and outright purchases.

- \* Do not expense (Section 179) capital purchases.

- \* Consider the ACRS straight-line election.

- \* Consider reporting federal cost-share payments for capital items (such as a manure storage facility) as income.

- \* Consider electing to forego the installment sale privilege.

- \* Don't fail to claim investment tax credit and qualifying rehabilitation credit. Credits can be carried back or forward, Tilmon says.

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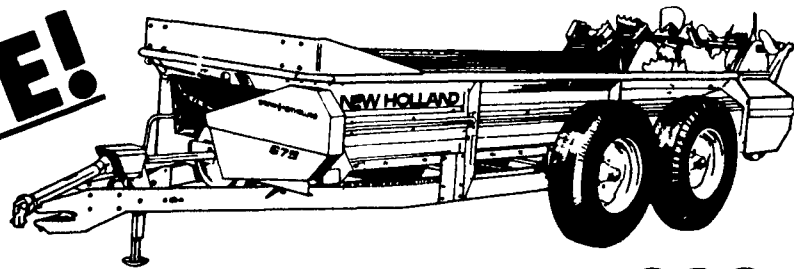
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