



CORN BITS

Harvest Height Study Shows Yield And Quality Differences

Greg Roth
Penn State Agronomy
Associate Professor

Harvesting corn for silage at a higher than normal level will reduce yields. But will the increase in forage quality be enough to offset the yield losses. We conducted a trial at our Landisville research station this year to study this issue. We harvested a grain hybrid, Mycogen 2799IMI, at either six or 18 inches from the ground. Each plot was replicated four times and Cumberland Valley Analytical Services conducted the forage analyses.

The increased harvest height reduced yields by 1 ton per acre and increased the dry matter of the silage. The starch content, Net energy, the fiber digestibility, and crude protein were increased with the increased harvest height, however. This could offset the loss in yield in some cases.

	6 inches	18 inches
Yield (Tons/a)	21.0	20.0
DM %	51.4	53.6
NE _L (Mcal/lb)	0.72	0.75
Starch (%)	29.7	31.1
NDF Digest %	59	64
Crude Protein %	7.8	7.9
Milk/ton DM (lbs)	2412	2589
\$ Milk/ton DM	289	310
Milk/Acre (lbs)	17725	18122
\$ Milk/acre	2127	2174

To assess the impact of the improved forage quality we evaluated the potential milk per acre and milk per ton using the new Milk 2000 equation from the University of Wisconsin.

This analysis showed increase in the milk/ton value of the higher cut silage as you might expect, that was about seven percent higher that more than offset the yield reduction of five percent. This is reflected in the slight increase in milk/acre of the higher cut silage.

These results are very similar to those achieved in trials conducted by the University of Wisconsin and Pioneer Hi-Bred International. Pioneer researchers and others have reported that the improvements in forage quality with increased harvest height might be less with some specialty hybrids or where the crop has been drought stunted or killed by frost.

This suggests that in some cases it might pay to harvest corn for silage at the higher height. The Milk 2000 economics estimates are dependent upon greater milk production from the higher quality silage. In situations

where the crop yields are high, storage is limited, the haul distance is great, the higher harvest height should be considered. The increase in dry matter content could be a plus if you want to start harvesting earlier, but it could be a minus if the crop was already dry, as it was in our study.

HFCS Developments In Mexico

Under pressure to pass a new budget and revenue provision for the year, the Mexican Congress passed a bill that would place up to a 20 percent tax on soft drinks that contain sweeteners other than cane sugar. "The measure taxes High Fructose Corn Syrup out of the market, and severely hurts U.S. corn exports," said NCGA President Tim Hume.

Use IRM To Protect Bt Technology
Bacillus thuringiensis, or Bt, corn has proven to be an important technology to help the nation's corn growers control damaging insects and produce higher yields and better quality grain. To preserve the benefits of Bt corn technology for growers, the NCGA recommends the implementation of Insect Resistance Management (IRM) practices.

Oil And MTBE Groups Attack Ethanol
The NCGA is expecting the new session of Congress will implement a nationwide renewable fuels standard (RFS). In 2001, NCGA's Ethanol Marketing Committee, the main force behind the Corn Growers' push for an RFS, witnessed a year filled with optimistic talk of such legislation.

However, the group knew that the petroleum industry would fight the RFS every step of the way, and it looks like the battle is heating up.

In a recent letter to Senate Majority Leader Tom Daschle, D-SD, and Minority Leader Trent Lott, R-MS, several oil industry representatives attacked ethanol and a renewable fuels standard. These organizations claim that implementing an RFS would adversely affect the economy, environment and fuel supply.

The letter portrayed a mandated ethanol standard as being disruptive and ill conceived, and urged the Senators to oppose an ethanol standard. Those signing the letter include a group of refiners and MTBE producers. However, the American Petroleum Institute

(API), which represents the major oil companies, did not sign the letter.

Corn Growers Applaud Ethanol Production Record
For the third month in a row, the ethanol industry has set an all-time monthly production record. "Ethanol is a growing industry," said John McClelland, NCGA's in-house expert on ethanol. "Production records indicate that demand is high and that our ethanol supply will readily expand to meet any increases in demand." The previous record, set in October 2001, was shattered in November as production reached 126,000 barrels of ethanol per day — that is a rate of 1.93 billion gallons annually. The production information is based on data released by the U.S. Energy Information Administration.

The Renewable Fuels Association reported November's production was up almost 16 percent from the previous year when only 109,000 barrels of ethanol were produced per day in November of 2000. With record levels of production throughout the year, experts predict nearly 1.8 billion gallons of ethanol were produced in 2001.

A recent study released by the NCGA revealed that increasing the total gallons of renewable fuels contained in motor vehicle fuels from current levels to four percent by 2016 would decrease oil imports and reduce the U.S. trade deficit by \$63.4 billion. It would also create 300,000 new American jobs, and increase U.S. household income by \$71 billion.

Of significant importance to corn growers the study revealed that if ethanol supplied four percent of the nation's fuel, corn prices would increase an average of 28 cents per bushel. Net farm income would also increase an average of \$6.6 billion annually, resulting in reduced direct government payments to farmers by \$7.8 billion through 2016.

Across the nation, 17 ethanol plants are under construction. The new refineries will potentially add more than 450 million gallons of ethanol production capacity.

NCGA President Looks Forward

The NCGA has met — and exceeded — many goals over the past year: passage of Trade Promotion Authority (TPA) in the House of Representatives, the successful promotion of ethanol to boost energy security and proving — through sound science — biotechnology presents great opportunities for higher yields and higher quality crops to farmers who need it and have determined there is a market for their harvested grain.

But an organization is only as good as what it accomplishes in the present and NCGA President Tim Hume realizes this. "I'm pretty

happy with what we've been able to do in 2001," he said, "but there is still more that needs to be done."

Big Victories for Big Rocks NCGA's Year In Review
What a year for the nation and the nation's corn growers. The NCGA is closing another successful year. Many of NCGA's "Big Rocks" (Ethanol, Trade, Research, Transportation, Farm Bill, and Biotechnology) have seen big victories over the last 12 months as corn growers around the country have joined together to make their voices heard on these matters.

One of the stories that just never seemed to go away was the claim that Bacillus thuringiensis (Bt) corn harmed Monarch butterflies. A Cornell report released more than two years ago stated the pollen of Bt corn affected the larvae of the butterflies and those who opposed biotechnology picked up the banner, using rumor and hearsay over the facts and sound science.

NCGA's Best And Brightest To Attend Leadership Training
Current and future leaders of the NCGA will attend a leadership training conference Jan. 28-31 in Washington, D.C. The conference, sponsored by Syngenta Crop Protection, provides training to growers who are currently state association presidents and those who are just beginning service on a state association board.

Sierra Club, Others, Want Alternative Fuel Vehicle Rule Enforced

Several environmental groups have filed suit against the federal government hoping to enforce the Energy Policy Act, a 1992 law that mandates the government to buy a certain percentage of alternative fuel vehicles. The suit was filed in federal court in San Francisco, Calif., against 18 federal agencies. The plaintiffs contend that the agencies failed to comply with the vehicle purchase requirement, which mandates that 75 percent of new purchases be of alternative fuel vehicles.

The purchase requirement was based on a desire to help wean the U.S. away from total dependence on foreign oil supplies. The plaintiffs claim that the agencies have failed to meet the law's requirement, and they expect to use the suit to compel agency compliance.

World Corn Production

In 2000, world corn production totaled 23 billion bushels. The U.S. produced about 43 percent of this or 9.9 billion bushels. China was the second largest producer, accounting for 18 percent of the world crop followed by the European Union at seven percent and Brazil at six percent. Mexico and Argentina each produced three percent of the world's corn that year.

Total world corn consumption in 2000 exceeded production and totaled 23.8 billion bushels.

Grower Testimony Calls For Upgrades In GPSA Grain Standards

As a grower who is directly impacted by work of the Grain Inspection, Packers and Stockyards Administration (GIPSA), Mike Clark, president of the Illinois Corn Growers Association, testified recently to the U.S. Senate Committee on Agriculture, Nutrition and Forestry that the government should review GIPSA's standards and the manner in which they are enforced.

Clark testified on behalf of the National Corn Growers Association (NCGA), American Soybean Association (ASA), and the National Association of What Growers (NAWG).

"As we enter the new century, we should take the time to review how our government operates and ask ourselves: Is there a better way?" Clark said, noting that while GIPSA is to be commended for its efforts in modernizing in its operation, little has been done to bring grain standards into the 21st Century.

"As you well know, U.S. producers must export a significant portion of their crop each year to remain solvent. This requires us to compete on a world market against well-positioned competitors," he said.

"Across the globe, world grain buyers have grown more sophisticated in their buying requirements, yet we continue to rely on standards that largely only describe external characteristics."

Current U.S. grain standards measure only volume and outward appearance, and very few inspection standards exist to give grain buyers the information they really want: The end-use characteristics of the crop.

"We need to harness the continued advances being made in technology to bring about a reliable and quick test that will predict the intrinsic qualities desired by the end user," Clark said. "In addition, we must retain the flexibility to adapt such standards as new technologies are developed."

