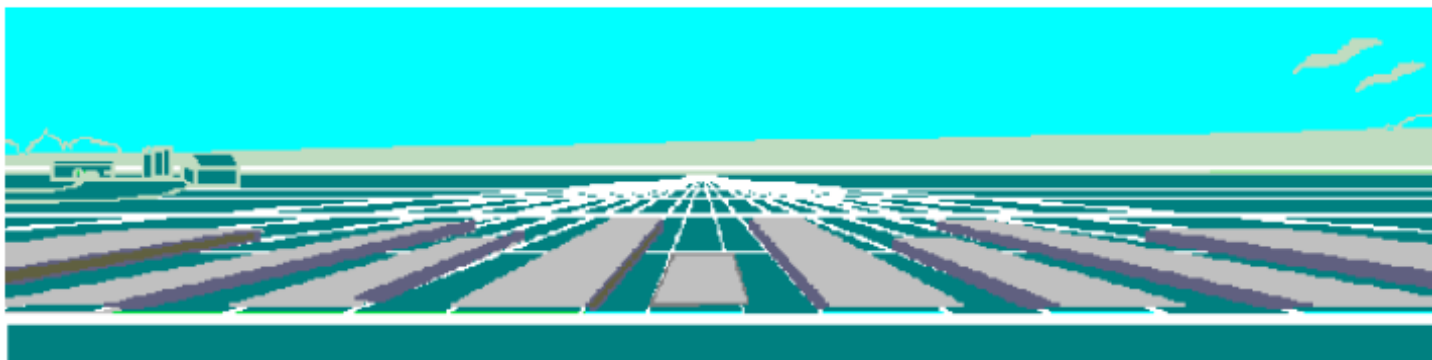


# Iowa Farm Outlook



June 18, 2007

Ames, Iowa

Econ. Info. 1960

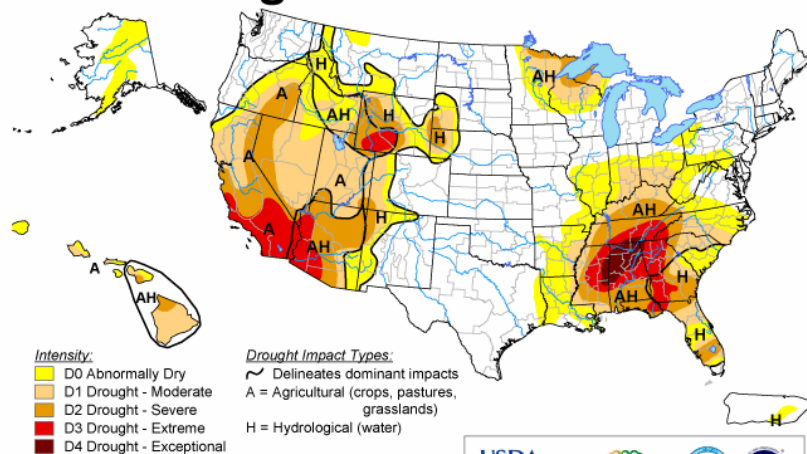
## Grain Markets, Yield Potential, and Weather Concerns

Corn and soybean prices have become increasingly volatile in the last two weeks, in response to trader uneasiness about dry weather in the eastern Corn Belt as well as in the Ukraine and Russia. With a projected 58% increase in corn to be processed for ethanol in the marketing year beginning September 1, 2007, the corn supply-demand balance for the year ahead looks quite tight. Supplies could become very tight with a 3 or 4 bushel per acre decrease in the U.S. average yield from current USDA projections or foreign weather problems that would strengthen U.S. corn exports. Exports of feed wheat and barley from Russia and the Ukraine as well as corn from the Ukraine have been trending upward for the last few years and have become important competitors of U.S. corn exports. Ukraine government officials have talked of possibly putting export controls on grain exports until at least 2 million tons of carryover stocks are assured. In the U.S., the extreme drought in the southeast has been expanding. This week's NOAA drought index map shows most of Ohio, Indiana, and about 2/3 of Illinois rated as "Abnormally Dry". The interactive link below from the University of Nebraska shows how the dry area has spread during the past two months. **Moderate drought is now reported for southern Ohio and Indiana:** [http://www.drought.unl.edu/dm/6\\_week.gif](http://www.drought.unl.edu/dm/6_week.gif) The June 11 weekly crop condition report showed 10% less of the Indiana corn crop in good-to-excellent condition than a week earlier, along with declines of 2% in Iowa and one percent for the 18-states total. The NOAA 6- to 10-day forecast can be found on our web site (<http://www.econ.iastate.edu/faculty/wisner/>) in the right-hand column under "U.S. and South American Weather". When the weather menu comes up, click on the heading:

**6-10 Day & Monthly U.S. forecasts, NWS**

## U.S. Drought Monitor

June 12, 2007  
Valid 8 a.m. EDT



The Drought Monitor focuses on broad-scale conditions. Local conditions may vary. See accompanying text summary for forecast statements.

<http://drought.unl.edu/dm>

Author: Rich Tinker, Climate Prediction Center, NCEP/NWS/NOAA

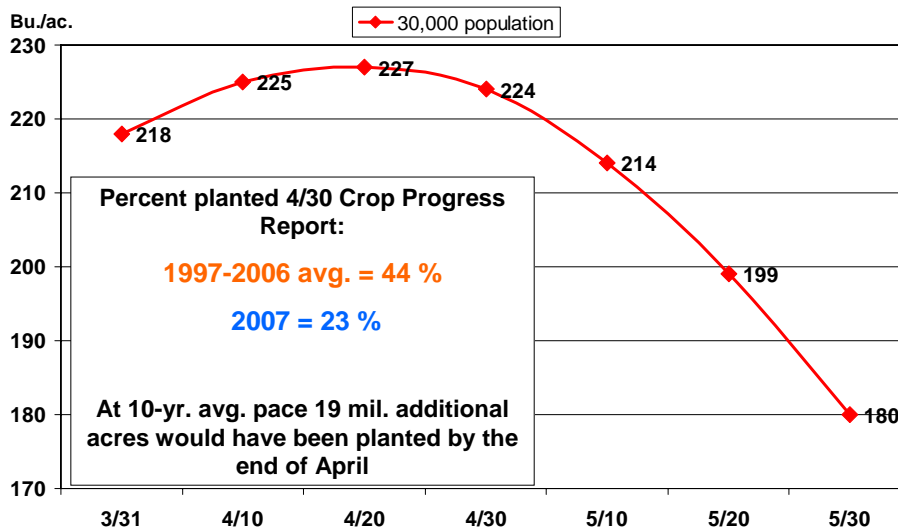
The current 6- to 10-day forecast shows some chance of rain across the northern 1/3 of the eastern Corn Belt, with little chance of rain for the remainder of the region. In contrast, some private forecasters are more optimistic about the chances of rain in the central and eastern Corn Belt next week. Indiana and Ohio produced 1.316 billion bushels of corn last year and 1.354 billion bushels the year before. Their intended corn acreages this year are up 13% and 16% respectively from 2006 plantings.

## Influences on corn yields

The grain trade appears to have been anticipating above-trend corn yields this year, based on recent weekly crop condition reports for the 18 major corn states. The percent of corn rated as good and excellent in

### Figure 2. Corn Planting Date and Yield

Field Tests at DeKalb and Monmouth, Illinois, 2005 and 2006



Source: February 2007 Newsletter Volume 26:2, Department of Crop Sciences, College of Agricultural, Consumer, and Environmental Sciences, University of Illinois, Urbana-Champaign, Illinois, [www.cropsci.uiuc.edu/research/rdc/monmouth/newsletters/2007/Feb\\_2007.cfm](http://www.cropsci.uiuc.edu/research/rdc/monmouth/newsletters/2007/Feb_2007.cfm).

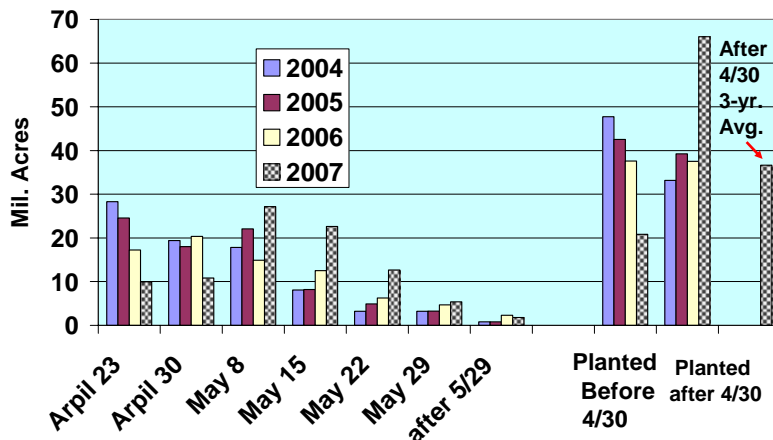
would have a large down-side risk. Since June 1, I have traveled about 1,500 miles in central, north central, northeast, and east central Iowa, west central Illinois, southern Wisconsin, southeastern and south central Minnesota. The best looking crops, by far, in this region have been in extreme east central Iowa and Illinois. Crop conditions in the central part of Iowa are better going north from hwy. 20 on I-35, as compared with from Ames southward. A dominant feature of both corn and soybeans in most of the area above, except for extreme east central Iowa and Illinois has been noticeably shorter than desirable crop heights. Recent warmer weather has accelerated growth and may help the crops to offset some of this spring's planting delays. The area I have

traveled is a small sample of the Corn Belt, but is a large enough area to raise some cautions about the potential for an above-trend U.S. yield. U.S. average corn yields in the last three years were 160.4, 148, and 149.1 respectively, beginning with 2004. The corn crop was planted very early in each of these years.

In its June 11 World Supply-Demand Report, USDA's World Agricultural Outlook Board left its projected 2007 U.S. average corn yield at 150.3 bushels per acre, the same as last month. An important input it used in that decision is shown in Figure 2. The graph shows results from University of Illinois research on corn yields at two Illinois locations with varying planting times. Note that the end

of April is the optimum planting time, with the graph showing yields peaking at 227 bushels per acre. Delaying planting until May 15 lowered the yield by approximately 22 bushels per acre. A substantial part of the 2007 crop, especially in the western Corn Belt crop, was planted later than the optimum time. Figure 3 below shows

### Figure 3. 18-State Corn Plantings by Week, 2004-2007

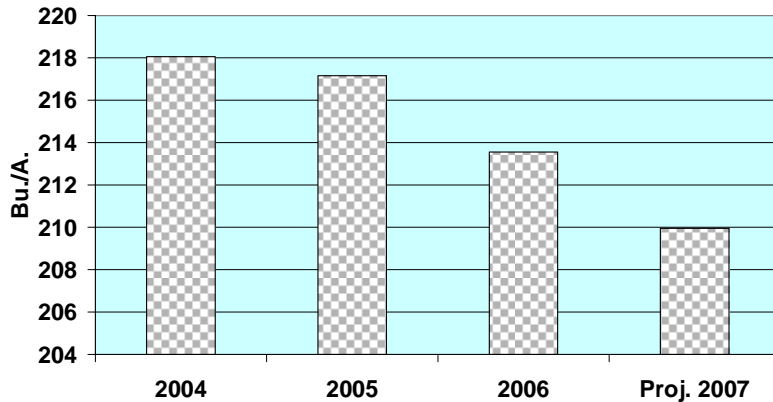


of April is the optimum planting time, with the graph showing yields peaking at 227 bushels per acre. Delaying planting until May 15 lowered the yield by approximately 22 bushels per acre. A substantial part of the 2007 crop, especially in the western Corn Belt crop, was planted later than the optimum time. Figure 3 below shows

the number of acres planted by week in the 18 major corn states this year and in the previous three years. Note that about 66 million of this year's corn acres were planted after April 30, compared with a three-year average of about 37 million acres.

In Figure 4, plantings by week are weighted by the indicated Illinois research yields to compute potential corn yields by year. The indicated 2007 yield has no adjustment for sharply increased corn acreage in the lower-yielding areas of the Northern Plains and the South, and no adjustments for 9 to 12 percent lower yields that would be expected from corn planted after corn the previous year.

**Figure 4. Potential Corn Yields Based On University of Illinois Planting Date-Yield Research**



This information suggests caution should be used in projecting U.S. corn yields this year. With ideal weather, above-trend yields cannot be ruled out, but the later-than-normal plantings, increased corn-after-corn plantings, and increased acreage in lower-yielding regions suggest caution is needed in translating the weekly crop condition ratings into potential yields this early in the season. Planting dates are an important factor in the corn yield forecasting equation that we use later in the season, after the crop has pollinated.

### USDA Crop Rating Guidelines

The section below shows instructions from USDA, NASS to its 5,000 weekly crop reporters, for use in crop condition ratings:

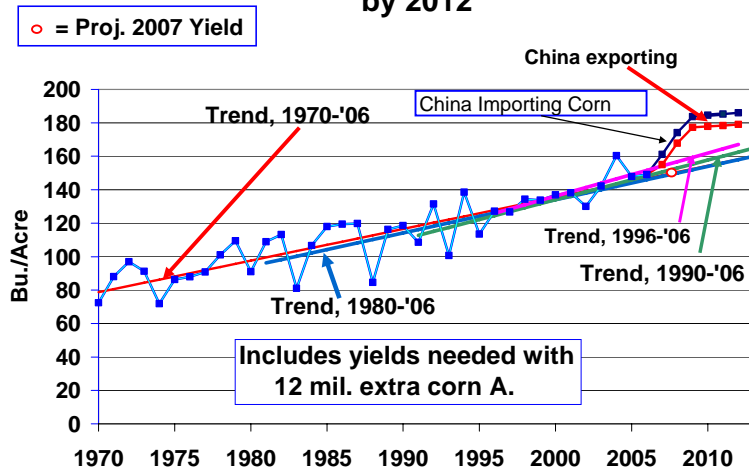
- *Very Poor* - Extreme degree of loss to yield potential, complete or near crop failure.
- *Poor* - Heavy degree of loss to yield potential which can be caused by excess soil moisture, drought, disease, etc.
- *Fair* - Less than normal crop condition. Yield loss is a possibility but the extent is unknown.
- *Good* - Yield prospects are normal. Moisture levels are adequate and disease, insect damage, and weed pressures are minor.
- *Excellent* - Yield prospects are above normal. Crops are experiencing little or no stress. Disease, insect damage, and weed pressures are insignificant.

Note that plant height is not mentioned in the rating guidelines. Thus, later-than-normal crop development would not necessarily be reflected in the weekly good-to-excellent ratings.

### Historical Yield Trends

In the last two or three years, we've heard considerable talk of an accelerated uptrend in U.S. corn yields. With the rapid expansion in the ethanol industry, yield trends will be very important in determining how much additional land will need to move from other crops into corn in the next few years. Figure 5 shows U.S. corn yields since 1970. It also shows trends from 1970 to 1996, 1980 to 1996, 1990 to 1996, and 1996 to 2006. The red circle shows our projected yield for 2007 (150.5 bushels per acre), with approximately normal summer weather. It is between the 1980-06 and 1990-06 trend lines. The projections to 2012 show needed yields to support a corn-based ethanol industry using 5.5 billion bushels of corn for ethanol, ***if corn acreage remains at this year's level.*** It looks doubtful that U.S. corn yields will be able to increase that rapidly in the next 3 or 4 years. More likely, further shifts of other crops and CRP land into corn will be needed to support the ethanol

**Figure 5. US CORN YIELD 1970-2006 & Needed by 2012**



years ago. If that shift occurs in the next few years, it will create a need for additional cropland to be shifted into corn, and will be an additional upward influence on corn prices. China briefly became a net corn importer in the mid-1990s. Its imports combined with U.S. crop problems led to \$5 cash corn prices in Iowa for nearly six months.

### Key Market Indicators to Watch

For the very near term, the 6- to 10-day weather forecasts from the National Weather Service will be very important to watch. Dry weather is becoming a serious concern in the eastern Corn Belt. A general rain across that region would almost certainly weaken corn and soybean prices substantially. The opposite, which a number of forecasters are calling for at this writing, could add further upside potential in the next 2 or 3 weeks.

Weekly export shipments or inspections (released on Monday mornings) and export sales reports (released on Thursday mornings) will be important indicators of whether corn prices are slowing export demand. As noted in the last issue of Iowa Farm Outlook, corn exports have slowed in the last few weeks. Soybean export shipments remain strong relative to a year earlier, but are expected to slow in the weeks ahead.

***The June 29 planted acreage and grain stocks reports will be extremely important market indicators.*** Opinions on actual planted acreage vary. Some analysts believe corn plantings are larger and soybean plantings are smaller than indicated in the March planting intentions survey. Market trends, weather, and nitrogen fertilizer prices normally would have tended to move acreage adjustments in the opposite direction, but some analysts believe farmer optimism about corn prices was an over-riding factor.

*The grain stocks report will allow analysts to estimate corn feeding in the March-May quarter. Domestic feeding is still the largest source of demand for the corn crop. Indicated corn feeding in the first half of the marketing year was slightly below a year earlier.*

The wheat market also will be an important market indicator to watch. In the last several days, wheat prices have moved up sharply in response to rains in the central and southern plains that were delaying harvest and bringing concerns about possible quality deterioration. As noted earlier, dry weather in former Soviet republics and other areas also was influencing wheat markets. In the world market, feed wheat is a major competitor of corn. Recent wheat futures prices over \$6 per bushel will restrict wheat feeding.

*Robert Wisner*

### Feeder Cattle Price Outlook

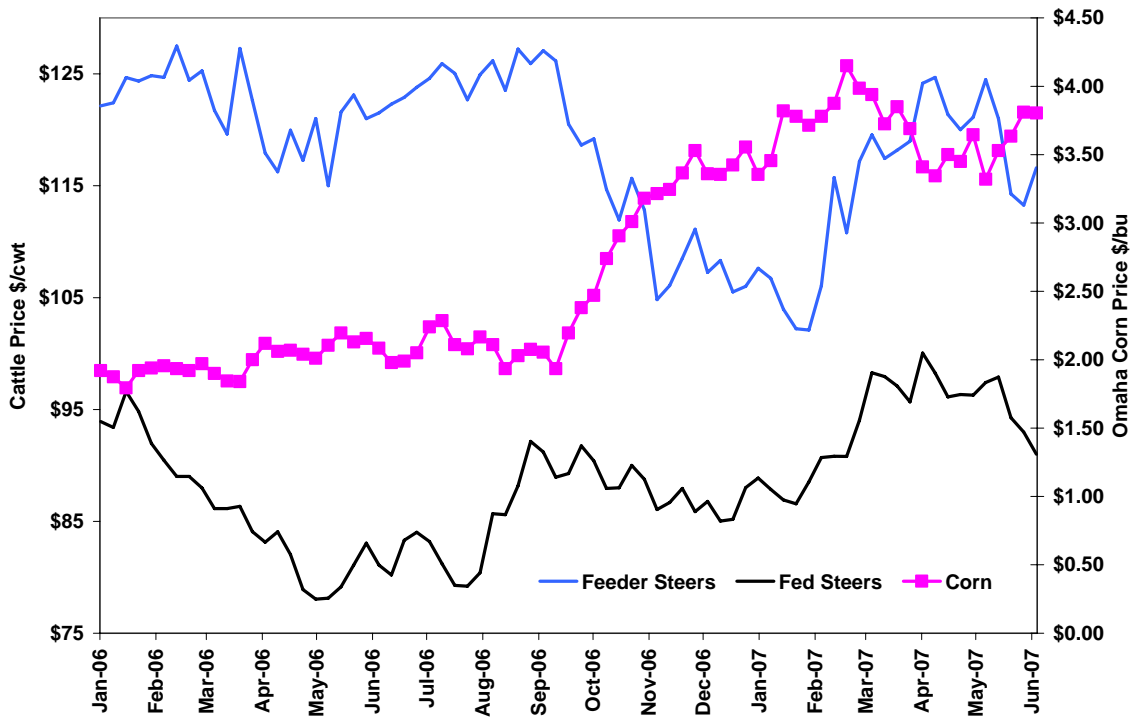
With the end of the spring calving season and feeder cattle producers start to study the feeder cattle markets and firm up fall marketing plans. A year ago fed cattle prices were lower and corn prices were much lower. Figure 1 compares the recent trends in corn and cattle prices. The prices in the graph are for Kansas fed

expansion. Assumptions behind the projections include modestly reduced domestic corn feeding through increased use of distillers grain, and a reduction in exports of about 17% from this year

The upper set of yields reflects a shift of China from a net corn exporter to a net importer, initially importing about 300 million bushels annually, with a 5% growth rate per year. For many years, China has been the world's second or third largest corn exporter (excluding France, which exports mostly within the EU). Many in the grain trade as well as USDA and other analysts have expected China to soon shift from corn exporter to importer, as it did with soybeans several

cattle and 600-650 lbs feeder cattle and Omaha corn. The past 18 months have been a great example of the negative relationship between corn and feeder cattle prices, and the positive price relationship between fed and feeder cattle.

**Figure 1. Kansas Cattle Prices, Omaha Corn Price, 2006-Present**



Corn prices are not expected to decrease significantly before harvest or even the end of the year, fed cattle prices will continue to be the fluctuating variable that will add volatility to the market. Fed cattle prices are expected to rebound from their recent decline and average about \$90/cwt for the summer months, and fall prices are forecast to be in the range of \$90-95/cwt. So what can we expect feeder cattle to do in the fall of 2007? Feeder cattle prices in the third quarter will be less than those of a year ago, but still above the ten year average. Third quarter prices are expected to be 5 to 10% lower than a year ago. Fourth quarter feeder cattle prices on the other hand will be similar to those of last year after harvest corn prices dramatically increased. Finally, beef feeder cattle supplies may be slightly lower this year, with fewer beef cows calving than a year ago. This may also help offset some of the weaker feeder cattle demand created by higher feed costs. In conclusion, cow-calf producers should see yet another profitable year. However, it may be advisable to use some form of marketing strategy that will mitigate the risk of increased corn prices.

*Shane Ellis*