RALSTON, Iowa, Nov. 4 - As Iowa finishes harvesting its second-largest corn crop in history, Roger Fray is racing to cope with the most visible challenge arising from the United States' ballooning farm subsidy program: the mega-corn pile. Soaring more than 60 feet high and spreading a football field wide, the mound of corn behind the headquarters of West Central Cooperative here resembles a little yellow ski hill. "There is no engineering class that teaches you how to cover a pile like this," Mr. Fray, the company's executive vice president for grain marketing, said from the adjacent road. "This is country creativity."

At 2.7 million bushels, the giant pile illustrates the explosive growth in corn production by American farmers in recent years, which this year is estimated to reach a nationwide total of at least 10.9 billion bushels, second only to last year's 11.8 billion bushels.

But this season's bumper crop is too much of a good thing, underscoring what critics call a paradox at the heart of the government farm subsidy program: America's efficient farmers may be encouraged to produce far more than the country can use, depressing prices and raising subsidy payments. In other words, because the government wants to help America's farmers, it essentially ends up paying them both when they produce too much and when their crop prices are too low.

Indeed, this season's huge volumes weigh heavily on farmers, who already have suffered a string of misfortunes: a large overhang of grain from last year, coupled with soaring energy costs and two Gulf Coast hurricanes that stymied transportation, and a severe drought that distorted prices. Together, these events have conspired to depress corn prices and potentially make this the most expensive harvest ever for the federal government.

Even as the Bush administration tries to persuade member nations of the World Trade Organization that it is serious about trimming agricultural subsidies, federal spending on farm payments is closing in on the record of $22.9 billion set in 2000, when the Asian financial crisis caused American exports to fall and crop prices to sink, pushing the Midwest farm belt into recession.

If export sales stay weak, this year's subsidies could hit a new record. Just last week the United States Agriculture Department raised its projection of payments to farmers by $1.3 billion, to $22.7 billion. In 2004, the subsidies were only $13.3 billion.

In response to pressure, the Bush administration said last month that the United States was prepared to cut its most trade-distorting farm subsidies by 60 percent over five years. The world's poor nations, which tend to be heavily dependent on agriculture, complain that
American and European Union farm subsidies spur growers to produce gluts that depress crop prices throughout the world.

The Agriculture Department's $1.3 billion revision comes primarily from higher loan-deficiency payments, which are now estimated to total $6.2 billion, said Keith Collins, the Agriculture Department's chief economist. Such payments are meant to cushion the blow for farmers who borrow money to raise crops but then have to sell them in the market for less than the outstanding loan.

Most of that money will flow to corn growers. Based on loan-deficiency rates that have recently topped 50 cents a bushel, the government probably will pay corn farmers about $4.5 billion this year in that subsidy category alone, said Bob Young, the chief economist for the American Farm Bureau Federation.

For critics of the American subsidy system, the record corn production highlights the tenuous assumptions underlying the program. Farmers are encouraged to produce as much as they can with the idea that greater exports will soak up the excess production. More recently, there are high hopes for using corn to produce ethanol for gasoline, but the infrastructure to produce large amounts of ethanol will take time.

But the huge volumes in recent years have not been matched by greater demand for American corn, and the woes created by two big harvests, along with the stifling effect of Hurricane Katrina on the transport of grains, have kept exports in check, analysts and grain traders said.

"We are still in a condition of grossly overproducing for what the market can pay, at least what the market can pay that is acceptable to our corn producers," said Ken Cook, president of the Environmental Working Group, an environmental research group based in Washington that has been critical of farm subsidies. "We can't make up the difference in the export market, and the taxpayers are on the hook."

The government spent $41.9 billion on corn subsidies from 1995 to 2004, according to the Environmental Working Group.

So far, current and future corn shipments of 550 million bushels are running 11 percent behind last year's level of 640 million bushels in early November, according to government figures. But lately foreign and domestic buyers, sensing fire-sale conditions, have started to snap up corn at historically cheap prices, said Steve Bruce, a grain trader with Man Financial in Chicago. "We have reached the saturation point where the grain elevator managers have said we just have to sell the stuff," he said.

With corn spilling out everywhere, the Agriculture Department predicted last month that American corn growers would receive an average of $1.85 a bushel for their new corn, which would be the lowest price since the late 1990's. The government is expected to release new estimates for crop production and exports on Thursday.
Storm damage and transportation bottlenecks sharply raised costs this year for producers, so that Midwest farmers had a tough time this fall finding buyers. Hurricane Katrina in late August damaged grain-exporting operations around New Orleans. Some 60 percent of corn and soybeans are normally exported through that city's port. A shortage of river barges and damage to the ports created domestic bottlenecks and added to internal freight costs, eating into farmers' profits and briefly making American crops less competitive than those of some foreign competitors. Barge rates have tripled in some places.

Higher costs for gasoline and diesel also led railways and trucking firms to increase their rates to haul the crops, in some cases by four to six times the normal rates. The rail system, in particular, was already strained coming into the harvest season, and grain merchants have struggled at times to find available rail cars. In Iowa, some grain elevators simply closed down when they got too full. For farmers in recent weeks, the morning harvest call was to "call two or three elevators and see which ones were open," Mr. Fray said. To be sure, the last two years of bumper harvests have shown how good American farmers have gotten at producing corn. More drought-resistant varieties, improved pesticides and more efficient farming practices have all contributed to higher yields, farmers and grain managers said.

Nearly perfect growing conditions helped produce last year's record crop. But this year the biggest surprise came in Illinois, which despite suffering its worst drought since 1988, still managed to produce a large crop. The drought made many farmers hesitant to sell their corn at depressed prices, decisions that worsened what became an excessive surplus. "The big lesson this fall is don't believe the farmers when they say they don't have a crop," said Jeff Hainline, a commodities broker at Advance Trading in Bloomington, Ill.

Government incentives to produce flat-out have also helped make the large corn harvests possible. Farmers are hardly shy about exploiting the government safety net provided by guaranteed loan-deficiency payments. "Everybody leans on the L.D.P.'s as much as they can," said Ash Kading, a farmer in western Iowa who was harvesting his last few rows of corn late last week. "It is like opening up the federal Treasury. There were quite a few people this year that wish corn prices would go to zero because they would have a bigger L.D.P."

While farmers and grain merchants like Mr. Fray expect even more corn to be planted next year, some traders believe that higher natural gas prices will cause farmers to grow less corn - natural gas is used to make fertilizer, pesticides and herbicides. "With higher energy costs you will see more wheat acres and soybean acres," Mr. Bruce said.

This year grain piles are everywhere across Iowa and parts of Illinois, the two biggest corn-producing states. In Iowa, the amount of grain being stored on the ground for lack of storage is averaging more than 19 percent, its highest level in at least 25 years, Mr. Fray said, citing private industry data.
Lately the giant piles have become the butt of jokes in farm country. They were spoofed in a fake picture, widely e-mailed, that showed a skier airborne atop West Central's biggest pile, with the caption that said "one thing you can do with a 3-million-bushel pile of harvested corn: Ski Iowa."

Mr. Fray smiles when he recalls the fake picture. But he has hardly become attached to his largest corn creation. West Central, which markets corn for more than 8,000 farmers, is planning to dismantle the 2.7-million-bushel pile before year-end to avoid rains that could ruin the corn, he said. Last year the company built a similar-size pile and gambled on the weather, only to suffer the misfortune of repeated late-season rains that badly damaged the quality of the corn, trimming the cooperative's profit by 34 percent, to $4.8 million.

This year, with corn bursting out of storage bins and lots of dry weather, West Central put 13.4 million bushels on the ground in 11 piles; 12.8 million bushels were left outside last year. But with customers moaning about a possible repeat of last year, the co-op tried to plan ahead this time, spending $4.5 million to build additional storage and buy giant tarps to cover some of the piles. As of last week, the co-op had covered half of the corn.

The 2.7-million-bushel pile, however, is too big to cover, since there are no walls to tie a tarp to. For that one, the company can only pray for dry conditions while it tries to find buyers for the corn. "So far," Mr. Fray said, "we have dodged a bullet."

Failing that, West Central could always build a ski lift on the hill.

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