

# Drought in U.S. grain belt deepens; contingency planting now required

by Marcia Merry

The glib remarks made by U.S. Department of Agriculture officials in January that we should “not worry about the weather too soon,” went up in a cloud of dirt in Kansas in March. No miracle rains fell after Christmas across the Great Plains, and by mid-March, 1930s-style dust storms hit Kansas, killing huge tracts of winter wheat, and blowing off thousands of tons of soil in the process.

But so far, none have reported the significance of what extensive drought in the U.S. grain belt means to the world: Millions worldwide are doomed to hunger and starvation. The United States accounts for over 43% of all the grain exported annually in the world. What is required—even at the late date of April—is a mobilization to plant whatever and wherever possible elsewhere: spring-sown crops in the Northern Hemisphere grain belts, and winter-sown crops in the Southern Hemisphere. These plantings, and also interim “catchcrops” in more favorable climes, are needed as compensation for the prospect of two killer droughts hitting the U.S. grain belt in 1988 and 1989.

Relative to producing the grain export potential needed to provide the world the diet level of 1984, there has been a fall-off in grain acreage planted in the United States and the other top five grain exporters—Canada, France, Australia, Argentina, and Thailand—so that this year they can be expected to produce 233 million tons of grain less than required by grain import-dependent nations in the Third World, *even if there is no significant adverse weather*.

The Soviet Union is now contracting for record imports of scarce Western grains. While Gorbachov, agriculture czar Yegor Ligachov, and other Soviet officials hold emergency sessions over how to reform Soviet agriculture, in reality they are relying on tribute from the West, in the form of huge quantities of meat, butter, grains, and livestock feeds from limited Western output. The Soviets are expected to import at least 45 million tons of grain this trade year, which alone would account for almost 25% of all grain traded annually in recent years. The percentage of grain available going to the Soviets may soon zoom to 50% or more.

Radio Moscow’s broadcast on March 22 gave prominent coverage to the conclusions of a recent Worldwatch Institute report on world food shortages, by quoting the report: “By the end of the next decade, food security may replace military security as the principal preoccupation of many governments.”

The map shows that the locations of the most severe soil moisture deficiencies are centered in Kansas and the winter wheat belt, in Iowa and the corn belt, in the Dakotas and the spring wheat belt, and in California, which produces half of the U.S. fresh and processed fruits and vegetables.

The map also shows many drought regions outside the High Plains grain belt, such as the Hudson Valley, north of New York City. There on March 22, New York Mayor Edward Koch declared an official drought emergency, and announced a list of restrictions on water use.

The following is a summary of reports from farmers and farm news services of the latest weather-related conditions in the farm belt that will reduce food output.

**Winter wheat:** The week of March 12, fierce, dry winds hit Kansas, which produces 17% of the entire national wheat crop, and one-third of the country’s hard red winter wheat, the type used for bread. The winds caused death or damage to the vulnerable wheat plants. Winter wheat is planted in the fall, and harvested in the early summer. This year, there was sufficient moisture for the wheat seeds to sprout, but not enough to put out proper root growth. In a normal year, along every foot of seeded row of wheat there are 100 “tillers” or plant shoots. This year, there average only 20 to 40. Then came the killer winds, which ripped off and sand-blasted the fragile plants.

Agriculture Department officials estimated that as of March 13, more than 75% of Kansas wheat was in poor to very poor condition.

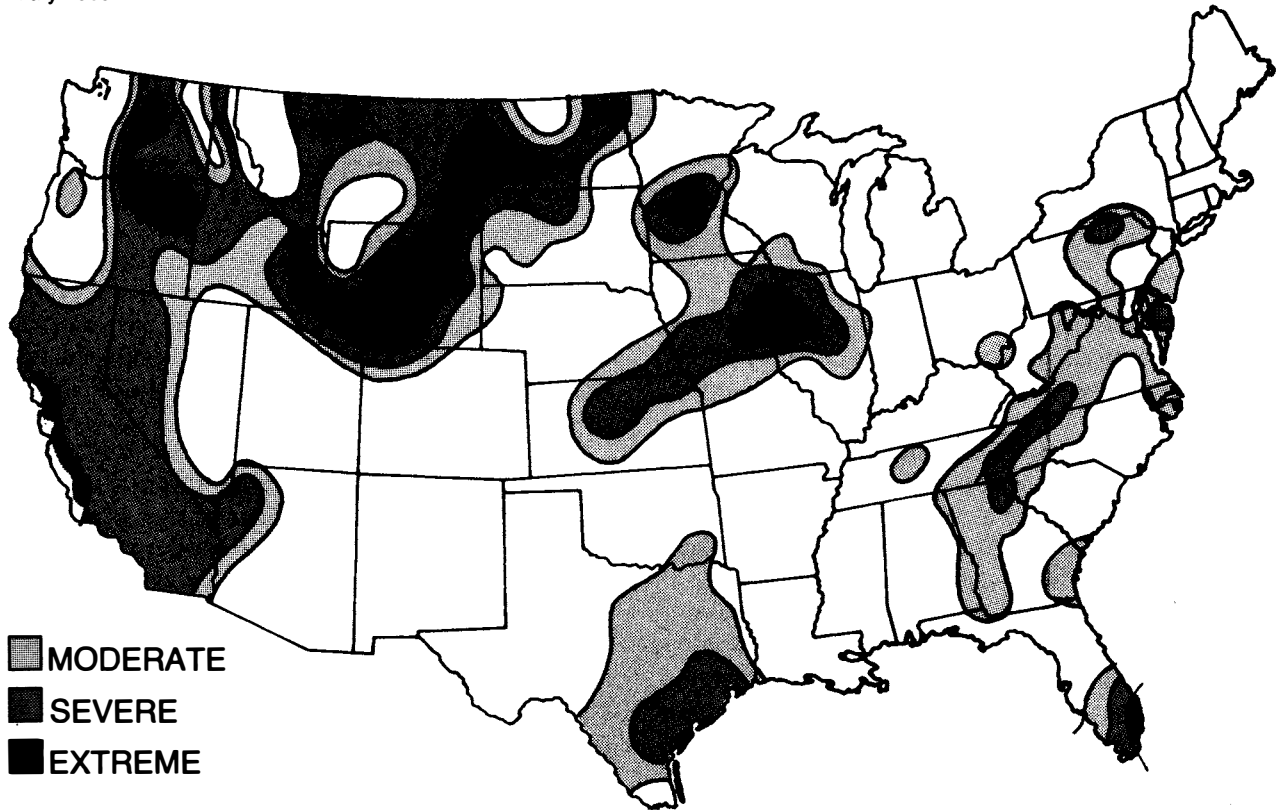
On March 15, a team of 60 wheat specialists from Kansas State University and from the Wheat Quality Council, an organization of millers, bakers, and other users of the crop, toured Kansas to survey the crop. Tom Roberts, spokesman for the group, said it was the worst crop he had seen in 23 years. The survey group expects that harvested acreage will have yields lowered from an average 38 bushels down to 25 bushels an acre. Roberts expects that 22% of the crop planted last fall will not be harvested at all. It is lost.

Therefore, instead of an increase in output this year compared to last, there will be a decline of perhaps 26%, from 319 million bushels (8.7 million tons) down to 235 million bushels (6.41 million tons).

This means a loss of 2.29 million tons of grain, which is equivalent to 5,880 million loaves of bread. Figuring that a person subsists on a one-pound loaf a day (and some other

## Drought severity persists in U.S. grainbelt

February 1989



Source: Based on the Long Term Palmer Index, February 1989, NOAA/USDA Joint Agricultural Weather Facility.

*The Palmer Drought Severity Index depicts prolonged (months to years) abnormal dryness or wetness, based on factors including lack of soil moisture, rate of recharge and deep percolation, rate of run-off, and other measures. Therefore, the areas shown here on the map as "extreme" and "severe," accurately show where drought is persisting in the grain belt. Since February, when the map was prepared, there has been some precipitation in the northwest, but otherwise, the areas hardest hit include the winter wheat belt centered in Kansas, the cornbelt centered in Iowa (and part of adjoining Illinois), the spring wheat belt centered in North Dakota and Montana, and most of California.*

foods), this means there will be no daily bread for 16 million people somewhere in the world, unless the Kansas wheat loss is made up.

**Spring wheat:** The map shows that there is an extensive area of soil moisture deficiency in the western Dakotas and eastern Montana, the center of the U.S. production of durum wheat, which is the high-grade grain used for pasta products, and for blending with lower-grade wheats to provide the texture and protein levels desirable in other grain staple foods. This wheat is planted in the spring, and harvested in mid-to-late summer, depending on the latitude and conditions. Without adequate soil moisture present, farmers will have to reduce the area planted. Yields will also go down drastically if the plants cannot sprout and mature properly.

**Corn:** As of mid-March, there were severe soil moisture deficiencies in as much as two-thirds of Iowa—the center of the corn belt. Only 25% of the state had normal or better than

normal soil moisture reserves, according to Iowa State University climatologist Elwynn Taylor. "Normal spring rains would replenish soil moisture at least to usual conditions," Taylor reported. "They wouldn't correct our groundwater situation, but they would correct the subsoil moisture situation."

Groundwater supplies have been going down during the past two years. The groundwater will not be recharged until subsoil moisture reaches saturation. All during the winter, Iowa farmers have been asking the state and the Army Corps of Engineers to dig wells for water for livestock. It was hoped that a "wet winter" would relieve the situation, and make way for a successful spring planting of the corn crop, or of soybeans, as many farmers plan to do. Now, unless there are "miracle rains"—steady, soaking, and perfectly timed, the results of the persisting drought will be seen in lower plantings and lower yields per acre.