

Poor weather continues to cause damage in key world crop zones

by Marcia Merry

As of February of this year, the wheat was gathered in in the Southern Hemisphere, and in the Northern Hemisphere, the fall-planted wheat was in the ground, and plans were in the making for spring-planted crops. But persistent bad weather is causing serious damage in key crop zones around the world.

Local news headlines play up the weatherman's chosen "event of the day"—the mass of frigid air that blasted North America from the Yukon south to Kansas at the end of January, or the freak six inches of snow in Los Angeles, or the winter sunbathers in Germany. But the overall picture of weather worldwide, in terms of what it means for immediate world food needs, is not being made clear to the general public or policymakers. The following is a summary picture of the current damage to major parts of the world's food production regions.

North America: winter wheat

The leading question of world crop forecasting for 1989-90 is how much the North American winter wheat crop has already been damaged by poor weather to date. Since it was planted in the fall—or after Christmas in Georgia and other southerly climes—damage has been confirmed in wide areas. The only question is how extensively yields will be reduced, and what can be done. First, however, consider the relatively low wheat acreage planted.

The U.S. Department of Agriculture doomed the winter wheat harvest to lower-than-potential in advance, regardless of the weather patterns this crop cycle, by insisting on a 10% acreage set-aside sign-up for 1989 (the period for registering is not yet over), and by refusing to aid financially pressed farmers to secure needed per acre inputs.

After the killer drought of 1988 hit crops last summer, the USDA announced it would lower the requirement for annual set-aside for wheat, corn, and other crops, down from 27.5% of base acreage for that crop last summer, to 10% for this year's crop. The USDA officials argued that the 10% set-aside was necessary, because, since wheat would be widely known to be in tight supply, and prices would edge up, farmers would plant more. The government presumed that many farmers would opt not to join the government's annual

income support programs, for which farmers must abide by the set-aside orders, because farmers would expect to get higher prices this year in the general market. Then in January—after the fall winter wheat planting was finished—USDA officials expressed "surprise" that this did not happen. No large-scale planting increase took place. Less than 12% more wheat acreage may have been planted in fall 1989 than in fall 1988. (See table, page 41).

Even the cynical commodities trade wizards could see this coming. Bill Gary of the Houston-based Commodity Information Systems said, "Farmers don't want to gamble anymore. They don't tend to believe the government anymore." Gary's survey showed plantings were down, and bank loans to buy more seed and fertilizer have been "hard to come by." Gary advised speculators that there would be a major bull market unfolding between now and July. There is not enough in the ground, and what is there is in trouble.

The USDA additionally has undercut the wheat output potential of the nation by refusing to reopen some of the 28.1 million acres of lands locked, since 1986, into the Conservation Reserve Program for wheat or other small grain production. Although some of the cropland with a fragile soil surface in eastern Colorado and other selected regions should remain out of row crops, many lands should again be cultivated to avert famine and restore the rates of evapotranspiration that crops can give to a regional ecosystem. Instead, the USDA is conducting a new sign-up period this February for more farmland to be entered into the Conservation Reserve Program. Under this program, farmers must pledge not to farm the land for 10 years. The USDA wants to lock up at least 45 million crop acres in this program, out of a total recent crop acreage base of 400 million.

Going from north to south, there are poor soil moisture conditions that have retarded some of the northernmost winter wheat in the Dakotas and Montana. Then came frigid winds, frequently causing winterkill of the weakened wheat plants, wherever cover was inadequate.

This same combination has afflicted the crop further south. In parts of western Kansas and Oklahoma, aridity last fall caused the wheat root systems to be retarded, making them

vulnerable to stress. There was wind damage. Then, until the February cold spell, the warm temperatures favored greenbug damage, especially in Oklahoma. South through the Texas wheat belt, the winter wheat was mostly retarded from lack of soil moisture.

The official USDA ratings of the winter wheat crop in Kansas are that 78% of it is poor to fair, 9% is poor, and only 13% is good to excellent. Fully 86% of the state subsoil is deficient in moisture, as is 66% of the topsoil. Kansas is the leading wheat-producing region in the world, accounting for 18% of U.S. production.

The prospects for the spring-planted durum wheat, centered in North Dakota, are also grim. The state's soil moisture is way below normal. North Dakota alone accounts for 81% of the durum wheat in the United States, and 42% of other spring-planted wheats. These are the wheats blended with other types to produce high-quality pasta.

Northern latitudes

As of late January, the continued mild weather in the western Soviet Union was causing winter grains to lose their hardiness, becoming more vulnerable to winterkill should a cold snap set in. In addition, there are the lingering effects in the Russian breadbasket of the 1986 Chernobyl nuclear disaster. Besides contamination to farmlands in the Ukraine, it is now estimated that one-fifth of Belorussia is contaminated, according to a Feb. 11 *Pravda* report. On Feb. 2, Soviet television reported that authorities had ordered the evacuation of 20 villages in Belorussia because of high contamination levels from fall-out. A reported 107 settlements had been evacuated in the state immediately after the disaster.

In Europe, abnormally dry weather has prevailed through early February, causing adverse conditions for winter grains. Although precipitation was favorable in most of Western Europe in 1988, the Danube Valley was dry last year, and lack of rainfall in 1989 will pose problems. The dry European conditions extend through the Italian peninsula and into the littoral small grains belt of the southern Mediterranean.

Mostly dry weather has covered the grain areas of Morocco, Algeria, and Tunisia. Cumulative precipitation since November has been well below normal—less than 50%. As of early February, soil moisture reserves were at critically low levels. Last year, grains in Tunisia were seriously stressed by drought, and then hit hard by locusts. There is no margin for a repeat of disasters. Widespread soaking rains are now needed as the crops come into their growing season.

December and January rainfall patterns in China assisted many areas to begin recovering from the 1988 sequence of drought, then torrential rains and floods. Severe food shortages are now affecting over 100 million people due to last year's harvest disasters. Moderate rains have recently benefited soil moisture and reservoir levels in the North China Plain, but December rains were inadequate in the lower Yangtze and Yellow River valleys.

Southern latitudes

Drought reduced the wheat harvests in both Australia and Argentina this January. The Australian crop had favorable weather up through August, and then the dryness set in. The crop output fell from an expected 14 million tons to less than 13 million. Argentina's crop was similarly reduced from a hoped-for 8 million tons to 7.5 million. Since the wheat harvest, rains have set in to assist the corn and soybean crops now growing in Argentina. In Australia, the rate of soil depletion has reached a crisis phase, regardless of rainfall.

Rainfall has been adequate in most of the Botswana and southern Africa crop belts. The exception is a dry pocket covering large areas of the eastern "Maize Triangle" and a large part of the northern Transvaal.

Secondary food regions hit

There are secondary areas of food production which are being hit by drought or other adverse weather conditions.

In the eastern United States, a belt of moisture deficiency extends from New England, running east of the Blue Mountain/Blue Ridge chain of the Appalachians, all the way into central Georgia. For example, in the south-central, Danville, Virginia area, which averages close to 40 inches of precipitation a year, there was a 15-inch shortfall last year. Groundwater levels have dropped. Some tributaries of the Shenandoah River, for example, have fallen by 70%. Reservoir levels are low in the Hudson and Delaware River valleys, and in the Atlanta, Georgia water supply basin. The soil moisture deficiencies threaten the regional winter wheat, the variety used for crackers, and the condition of other crops and pastures important to the regional food supply.

California is entering its third year of drought. The winter rainy season is half over and most state reservoirs are only half full. Cities and local water districts are devising the most restrictive water use plans ever. Plans are in the works to drastically cut water to agriculture, the biggest user of water in the state. Fully 54% of the fresh and processed vegetable supply of the United States is produced in California. Meteorologists project that rainfall will have to be 130% of normal through March for water reserves to recover.

For Western Europe, one of its main supply areas for fruits and vegetables, Israel and Jordan, has been hit by a series of knock-out freezes. Israeli Agriculture Ministry spokesman Naftali Yaniv called the cold weather episodes the severest in Israel's history. The Israeli Natural Disasters Fund has been deluged with requests from farmers. Without massive help, many could go under. Hardest hit produce include tomatoes, mangos, strawberries, citrus, and avocados. Shipments have plummeted. Instead of exporting 7,000 metric tons of tomatoes this season, the state agriculture marketing board will market about 3,000 tons. Vegetable exports from Jordan to nine European nations have dwindled to 1 to 2 tons a day, from a projected 40-42 tons a day. More than 50% of the crops in the Jordan Valley were ruined.