

'Drought of 88' cuts crops, crop potential

by Robert L. Baker and George Elder

As of early July, 1,800 counties in 37 states had been officially designated by the U.S. federal government as drought areas. In contrast to the 1983 drought which set in during mid-summer, the current dry weather began in early spring in the worst hit areas, and otherwise struck by June.

All major crop types are severely affected. In the spring wheat belt of the northern tier of the United States and Canadian prairies, 60% of the grain crop (wheat and the other small grains) is lost—in some regions, it was never planted due to the extreme aridity. Thousands of acres of oats and barley are a dead loss; at best, some farmers have been able to seed the fields for sorghum or millet in hopes of some hay for livestock.

As of early to mid-July in Iowa—the center of the world's cornbelt—thousands of acres of corn were in the tassel and pollination stage, but the stalks had produced no ears. No kernels will form. In other places where the stress has been slightly less on the plants, some yield may be possible. Overall, if there is "miracle" rainfall no later than July 15, there could be a maximum of 50% of the corn crop saved. It is possible that in Iowa and much of Illinois, there will be no corn harvest at all. On July 8, Gov. Terry Branstad officially declared all 99 counties of Iowa a disaster area.

According to official state estimates, as of July 5, from Illinois—the second largest corn producer in the United States—half the crop is definitely lost, with more lost each day from heat and drought. Mike Williams, Assistant Director of Agriculture in Illinois, terms it the worst crop failure in the history of the state. The corn harvest could yield no more than 400 million bushels, only a third of last year's harvest. As of the first week of July, 70% of Ohio's 500 million bushel corn crop, the nation's sixth-largest, was under severe stress, with much of it slated to die if no rain comes.

The soybean harvest will also likely be cut in half nationwide. Soybeans in the Central States have been in a "holding pattern" in many areas, but prospects are grim because of the lack of rain in forecasts for high summer. The beans can bloom anytime between now and August, but the stress conditions may inhibit the blossoms, and diminish any beans that form.

The map of national "Drought Severity," taken from a special July 6 USDA/Commerce Department "Crop Bulletin," shows the vast extent of the drought. The drought will

likely continue and grow in intensity as the "normal" dry season of the year comes in the dog days of late July and August.

Hot dry wind passing over drier and drier ground will pick up less and less moisture. Healthy plants transpire moisture which becomes rain. Dry land does not.

The weather pattern in Montana and other northern states came six weeks early. Therefore, the normally dry weather during July and August will prove to be even worse than usual, unless unforeseen rainfall occurs. Currently, the ground is so dry that what little rain comes, evaporates almost as fast as it falls. Farmers believe that even irrigated crops will suffer a 25% reduction in production, because it is so hot and dry that water can't be pumped onto the crops fast enough.

In much of the drought area, 20-40 MPH winds with temperatures over 100 degrees are blowing, sometimes for days. These winds cause plants to transpire excessive moisture. The drought is so severe that a little rain is almost worse than no rain at all, unless there are frequent showers at least weekly. The reason is simple: The root system of the plant seeks out moisture. Therefore, a shower draws the roots of the plant back to the surface and sets the plant up to die that much more quickly when the rains stop and the weather turns hot again.

Some people may ask, "Why are there not clouds of dust blotting out the sky by now, like the "Black Clouds" of the Great Dust Bowl of 1934?" The reason is a difference in the technology in use: Farmers today have chisel plows, and powerful tractors to pull them. The chisel plows have long shanks that go deep into the ground. Farmers have used chisel plows as a last-ditch emergency tool to turn up moist clods of dirt to slow down the wind and catch blowing dirt; otherwise, many areas of the nation would have seen clouds of

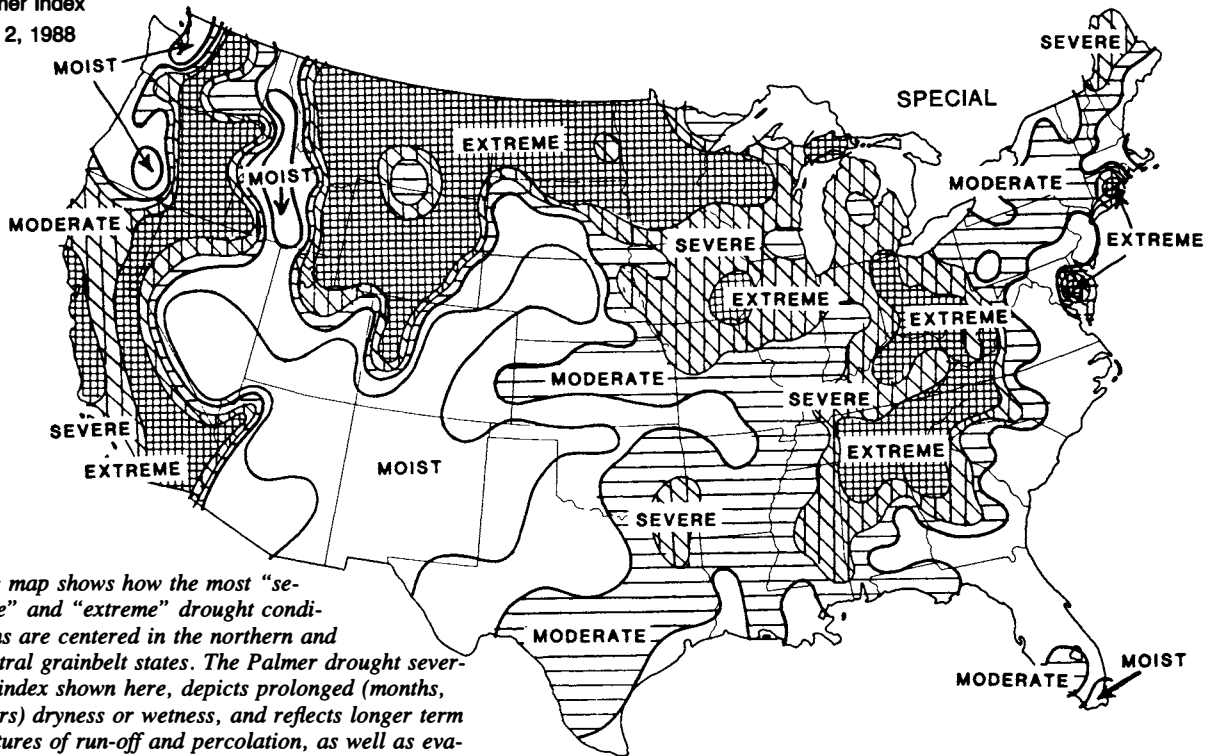


This year's stunted Iowa corn crop: far from "as high as elephant's eye."

Robert Baker

Drought Severity

Palmer Index
July 2, 1988



The map shows how the most "severe" and "extreme" drought conditions are centered in the northern and central grainbelt states. The Palmer drought severity index shown here, depicts prolonged (months, years) dryness or wetness, and reflects longer term features of run-off and percolation, as well as evapotranspiration.

Source: USDA, Dept. of Commerce

dust a mile high when there was a high wind.

Unfortunately, moist dirt that has been dug up dries out in the sun. Obviously, this is not a long-term answer. If the winds pick up again, expect the sky to turn the color of dirt, and think about how much less you will have to eat because the wind blew away the dirt to grow it in.

Forage situation critical

The forage situation is the major concern for the beef herds right now. The drought has so thoroughly destroyed vast areas, that the only place to obtain hay is from outside the drought zone. The large numbers of cattle being moved to market because they can't be fed have become a flood.

Feedlot capacities cannot handle these numbers. The overflow will be butchered and yield very poor quality beef. Both the number of cattle sold and the poor quality of cattle coming off the range will drive prices down for the farmer, to the point that we may very well see farmers shooting and burying cattle, as they did during the last Great Depression.

The USDA has stopped publishing a monthly report on the number of new cattle placed on feed. That's typical for the USDA; it covers up what is happening.

When the glut is over, there will be far fewer cattle. Prices will soar. Poor people won't eat meat, only the well-to-do will. Only the rich will eat steak.

But for now, it's glut and low prices. Cattle auctions that normally end in the afternoon are running to midnight and 5 o'clock in the morning from Indiana to Montana. Dairy calves that sold for \$200-250 last spring in the East are bringing \$8 in South Dakota.

Grain prices, increasing from speculation, are putting hog farmers out of business, because they can't afford to feed their pigs high-priced grain. Therefore, the price of feeder pigs has started to fall. In Iowa, the leading hog state, feeder pigs (40 to 45 pounds each) today are bringing only \$20-25 a head, fully \$30-40 less per head than only eight weeks ago. Sows are also starting to move to market due to the price of feeder pigs, the high cost of feed, and the searing heat. The impact of the increased beef supply from the drought will add to the price problem as well.

Next year

For the longer term, we must face the likelihood that 1989 will also yield a poor harvest due to the lack of decent subsoil moisture. In addition, where the ground is very loose, heavy rains, when they do come, will cause major damage from water erosion. This will only make a bad problem worse.

If we use the 1930s Dust Bowl as a marker, we must expect the situation to get worse, until we can force the government to act.