

Colorado's Drought/Water Shortage Could Be Worst In 25 Years

FORT COLLINS, Colo. - According to researchers at the Colorado Climate Center at Colorado State University, the state could witness water shortages this year unlike anything residents have experienced in 25 years.

The state's lowest snowpack accumulations in decades preceded by several years of below-average precipitation followed by a dry spring contributed to this year's lower than normal reservoir storage, low stream flows and extremely dry soils. The summer's monsoon moisture could help reduce short-term needs but will not likely have a large impact on Colorado's drought situation.

"What really stands out with this year's drought are the extremely low snowpack levels combined with the lack of reservoir storage in several basins," said state climatologist and professor of atmospheric sciences Roger Pielke Sr. "It will take an

exceptionally wet summer to make much of an impact on this year's drought."

By June, only two of the state's 86 measurement sites had snow remaining, leaving Colorado's statewide snowpack at two percent of average. Snowpack across most of the state melted during the later half of May, approximately two months earlier than usual. In many parts of the state the snow melt was absorbed by dry ground before making it to streams. Snow melt was also hampered by windy days and low humidities resulting in a substantial loss of water to sublimation.

According to the Natural Resources Conservation Service, May marked the ninth consecutive month of below average precipitation leaving statewide totals at 34 percent of average. Southwestern Colorado continues to report the lowest precipitation accumulations.

Early water demands, along with below average inflows, con-

tributed to a substantial decrease in Colorado's reservoir storage over the last month. Statewide storage decreased from 86 percent of average on May 1 to 73 percent of average on June 1. The combined San Juan, Animas, Dolores and San Miguel basins reported the lowest average storage at 57 percent. Other basins with below average storage include the Rio Grande at 64 percent, the Arkansas at 66 percent and the Colorado at 69 percent. The state's best storage is in the Gunnison basin which is reporting 95 percent of average.

According to the Colorado Division of Water Resources, reservoirs are also being used earlier than average this year to meet irrigation demands. Some reservoirs could be empty by the end of the summer without significant summer rainstorms.

A dry May brought additional decreases to the already low streamflow forecasts across Colorado. According to the Colorado

Drought Task Force, statewide streamflow forecasts include extremely below average (25 percent to 50 percent of normal) for the majority of northern and central Colorado river basins, and exceptionally below average (0 percent to 25 percent of normal) for the remainder of central Colorado and most of southern Colorado.

The lowest streamflow forecasts are in the San Juan River Basin with projected inflow into Navajo Reservoir at 9 percent of average. Forecasts along the Dolores, Mancos, Rio Grande and lower Arkansas tributaries remain only in the teens for percentage forecast. The state's best outlook is in the tributaries of the upper Colorado River and the northern tributaries of the South Platte River where forecasts call for volumes of 40 percent to 47 percent of average.

According to the NOAA Climate Prediction Center's U.S. Seasonal Drought Outlook report updated June 13, dry weather

pushed fire indices into the very high to extreme range throughout Colorado. NOAA reports that all of Colorado is in a drought.

"The most dramatic and visible evidence of drought for forested areas was realized and put on national and international display," said Nolan Doesken, research associate at the Colorado Climate Center. "The rapid spread of the fires in recent weeks was indeed indicative of the widespread drought conditions that we face."

The Colorado Climate Center, housed in Colorado State University's Department of Atmospheric Science, provides information and expertise on weather and climate patterns for the state of Colorado. Pielke and Doesken issue mid-month Colorado drought advisories throughout the spring and summer in conjunction with the center's new Web site at <http://ccc.atmos.colostate.edu> that provides access to current drought, weather and other climate data.

Low Risk Of Head Scab Disease On Wheat In Ohio

WOOSTER, Ohio — Much of Ohio's wheat crop may have escaped the risk of head scab disease, a bright spot in what's shaping up to be a rather dismal growing season for crop producers.

Pat Lipps, an Ohio State University Extension plant pathologist with the Ohio Agricultural Research and Development Center, said that predictions for head scab development throughout southern and central Ohio have been rated low or moderately low.

The current area of concern is in counties throughout the northwest portion of the state, where heavy rains have saturated heavy clay soils, creating conditions conducive for head scab development.

Lipps said it could be a week before a definitive determination is made as to whether or not the crop in that region will develop the economically damaging disease.

"So far, everything has been good for us. Most of the state has made it through the critical period," said Lipps. "The northwest corner of the state is where we are concerned right now. Basically recent warm weather and high levels of precipitation have made it favorable for infection and if that trend continues, there could be a possibility of scab."

Counties being watched for head scab risk include Fulton, Williams, Defiance, north Henry, north Wood and parts of Sandusky.

The assessment of head scab risk was made using mathematical models developed by Ohio State crop specialists that use weather data to determine the probability of disease development. Researchers collected data from 15 weather observation stations in Ohio, southern Michigan

and eastern Indiana.

One model analyzes the duration of precipitation in hours and the number of hours the air temperature is between 60 degrees and 86 degrees Fahrenheit for seven days prior to flowering. It is during this time when the fungus develops spores.

Lipps said the model has been 78 percent accurate in determining low level of disease development.

The second model calculates the number of hours when the air temperature is between 60 degrees and 86 degrees Fahrenheit for seven days prior to flowering, when the relative humidity is above 90 percent and when the air temperature is between 60 degrees and 86 degrees for 10 days after flowering.

The model addresses the time when the fungus develops spores, when infection occurs and when disease develops. It has proven to be 84 percent accurate in determining economic levels of disease development.

"We talked to a plant pathologist in Pennsylvania recently, and they are very close to our predictions," said Lipps. "Indiana is about the same as Ohio, and Michigan right now is entering a point of concern. Pathologists in Ontario (Canada) are very concerned about head scab right now, because the same sort of showers hitting northwest and southern Michigan are going right over Ontario."

Head scab, or Fusarium head blight, can be devastating for wheat producers. The disease is likely to occur when warm, wet weather persists during the crop's flowering stage in May and June. The disease infects the wheat heads, causing shrunken, lightweight kernels, thereby reducing the quality and feeding value of the grain. The fungus that causes

the disease also produces a chemical in the infected grain called vomitoxin that is toxic to livestock and humans.

According to a North Dakota State University study, United States direct and indirect economic loss from head scab from 1998-2000 was estimated at \$2.7 billion. Ohio's losses were estimated at over \$315 million for the three-year period. Ohio's last major head scab epidemic occurred in 1996 when yields dropped to 39 bushels per acre.

Farm income losses alone were estimated at \$180 million.

Northwest Ohio is home to the highest wheat producing counties in the state. "That's where we grow most of our wheat and when we have a risk up there of head scab, it has a bigger impact on our total production," said Lipps.

The crop throughout the northern regions of Ohio is now in flower. Approximately 10 days after all counties have wheat in flower, researchers are expected to have the forecasting models

for the entire state completed.

Ohio ranks seventh overall among all winter wheat-producing states in the United States and produces some of the highest quality soft red winter wheat sought after by millers and bakers.

For more information on the head scab forecasting system, log on to <http://www.oardc.ohio-state.edu/ohiofieldcropdisease/wheat/Scab%20forecasting%20webpage02.htm>.

Ohio's Wheat Production Continues To Shrink

COLUMBUS, Ohio — Ohio's first wheat production forecast is down 10 percent compared to last year, continuing the state's trend of a shrinking crop the past several years.

According to the Ohio Agricultural Statistics Service Farm Report, growers are expected to produce 54.5 million bushels of wheat, a 5.9 million-bushel drop from 2001. Average state yield is expected to reach 66 bushels per acre, one bushel less than last year's harvest.

Matt Roberts, an Ohio State University agricultural economist, said poor profitability compared to corn and soybeans might be a factor behind the steady decline in Ohio's wheat production.

"When you compare wheat to corn and soybeans, for most places in Ohio, wheat is not going to be as profitable of a crop," said Roberts. "Farmers who look at wheat production one year at a time see they just make more money running a corn/soybean rotation. When you look at a one-year time window, wheat will almost always be less profitable."

He said large wheat producing states further west are profitable in wheat production because soil and weather conditions make it difficult to produce any other crop. "Ohio, however, has very good soils that are favorable for growing other more profitable crops and growers can just get better yields with corn or soybeans over a one-year time span."

Wheat production in Ohio has

been in a steady decline since 1996. Where five to six years ago growers were harvesting a million to 1.2 million acres, growers are only expected to harvest 825,000 acres in 2002. That number is an eight percent drop compared to last year's harvest and a five percent decline from this year's 870,000-acre seeding estimate.

"We lost some of those acres over winter due to disease problems and wet conditions in northwest Ohio," said Pat Lipps, an Ohio State Extension plant pathologist with the Ohio Agricultural Research and Development Center in Wooster, Ohio. "Not all of those acres were replanted, so we will see a drop between harvested acres and planted acres."

Lipps also maintains that low wheat prices compared to other commodities, as well as a strong price support system for soybeans, is behind the significant drop in wheat acreage.

"Those are probably the two most important factors. There is also a third factor involved what I'd call a production-type factor in that growers are moving toward reduced tillage and no-till systems and they have a very difficult time managing corn planted into wheat straw," said Lipps.

He said that the straw acts as an insulator on the soil surface, holding in moisture longer into the spring, causing delayed planting and stand establishment problems with corn, as well as increased disease pressure.

"It makes it easier production-wise to remove wheat out of the

rotation program," said Lipps. "Wheat, however, is an excellent rotation crop and a lot of farmers probably would like to move back to that rotational system if there was more of an economic benefit for them."

The change in government loan rates in the 2002 Farm Bill may aid in that decision.

Roberts said the price increase for wheat and subsequent price decrease for corn and soybeans may have some effect on wheat acreage, but how much, if any, remains to be seen.

"I think that it will have a positive influence on wheat acres, especially when we are running into some problems with the number of acres of continuous soybeans increasing in the state," said Lipps. "Soil-borne diseases that follow continuous soybeans could be very critical in our state, so to have wheat in that rotation with corn provides even more of a period of time for those organisms to be managed."

Overall wheat production in the United States is down 1.3 billion bushels, or four percent, compared to last year, according to the USDA report, the lowest production since 1978. Yield is forecasted at 43.1 bushels per acre, the lowest harvested acreage since 1917.

If Ohio's wheat crop stays true to the numbers, it would account for four percent of the total U.S. soft red winter wheat. Ohio ranks seventh overall among all winter wheat-producing states and produces some of the highest quality soft red winter wheat sought after by millers and bakers.

New York Schedules Antique Show

HAUPPAUGE, N.Y. — The old makes the news in St. James, Long Island on Sunday, July 21 with the Ninth Annual Smithtown Township Summer Antiques and Collectibles Show and Sale. Porcelain, vintage radios, sterling, glassware and other memorabilia will be among the items offered from 10 a.m. until 4 p.m. on the grounds of historic Mills Pond House.

Admission is \$3 (children under 12 are free) with proceeds going to the non-for-profit Smithtown Township Arts Council to allow it to expand its community outreach.