

# UI Extension experts say heavy moisture has been a mixed blessing for farmers

By John O'Connell

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Many southern and eastern Idaho farmers who celebrated a heavy winter snowpack followed by a stormy spring as a reprieve from drought are now finding many of their fields have been hit with too much of a good thing.

University of Idaho agriculture experts offering crop updates during a recent Ag Talk Tuesday online discussion reported lingering snow cover amid a cool and moist spring created ideal conditions for snow mold to damage winter cereal crops.

Snow mold fungi grow at near-freezing conditions under prolonged snow cover, and damage has been extensive in winter wheat, especially in the Arbon and Malad valleys of southeast Idaho.

Winter kill, due to very cold and dry conditions on exposed winter wheat and barley, has plagued those areas not under snow cover. Ponding of water in low areas also reduced stand in winter crops.

Intense spring hailstorms from Murtaugh through Rupert and in the Idaho Falls area have compounded challenges for winter cereal growers.

“The whole area has been shredded with hail damage. A number of winter wheat and winter barley fields were taken out of production for hail damage,” said Juliet Marshall, a University of Idaho professor of plant pathology and head of the Department of Plant Sciences. “We’re looking at yield reductions of 70% easily in some areas.”

Near Pocatello and Fort Hall in southeast Idaho, symptoms of bacterial infections in wheat are developing. Hail and wind-driven sleet damaged plants, allowing infection and development of bacterial leaf streak in barley and black chaff in wheat.

Flooding of fields has caused soil erosion and delayed planting in the high-elevation Soda Springs and Antelope areas of eastern Idaho, exacerbated by late snowmelt.

“The area where we were going to plant for a wireworm study has been flooded, and I’m not sure if we’re ever going to get in and plant,” Marshall said, adding that the university’s scheduled field day in the Rockland Valley of southeast Idaho may ultimately be canceled, as there’s little information to glean from the experimental cereal stands due to extensive snow mold damage.

The Rupert winter wheat and winter barley variety trials were plowed under due to winter kill damage in the surrounding field of winter barley.

Triticale fields in southern Idaho were especially hard hit by the winter conditions, with many farmers reporting crop survival of just 10% to 20%.

In Northern Idaho, which has received about 3 inches below normal precipitation, Idaho Wheat Commission officials said cereal crops are faring relatively well.

Pamela Hutchinson, UI Extension potato cropping systems weed scientist, has heard several reports from potato farmers throughout southcentral and eastern Idaho regarding foliar damage to spud plants caused by excessive moisture carrying pre-emergence herbicides too deep into the soil profile.

With just 1 or 2 inches of excess rainfall within a two-week period, pre-emergence herbicides may move down to where they're absorbed by emerging potato shoots rather than the roots of weeds growing within the top 2 inches of the soil, as intended.

The herbicides Matrix and Metribuzin are especially water soluble, but Hutchinson has also received inquiries about potato damage this season from growers who used moderately soluble products such as Prowl H2O, Linex, Eptam, Dual Magnum, Outlook and Sonalan.

Hutchinson has conducted simulated excess rainfall trials at the U of I Aberdeen Research and Extension Center to evaluate potential herbicide damage with regular moisture, 3 inches of excess moisture and 6 inches of excess moisture within two weeks of application.

Depending on the chemistry, symptoms of herbicide damage may include crinkled leaves, stunting, blotchy yellow spots, vein chlorosis, stubby roots, thickened stems and heart-shaped leaves.

In Hutchinson's trials, potato plants typically recover from the damage with time.

"We've seen potatoes recover and not have any yield loss because of early herbicide damage," Hutchinson said.

If moisture moves herbicides so deep in the soil that weeds are not controlled, growers may subsequently apply products labeled for post-emergence use, such as Metribuzin.

Hutchinson said many farmers who recently reported problems in their potatoes used 0.8 inches of water or more to incorporate their pre-emergence herbicide application into the soil through irrigation or chemigation.

She advises using no more than 0.4 inches to 0.6 inches of water for herbicide incorporation, thereby giving growers wiggle room in case of wet weather.

Hutchinson urges growers who have experienced herbicide damage this season to follow their usual irrigation programs based on their soil moisture, recognizing it's important to avoid further stressing the developing potato plants.

09 Jun 2023