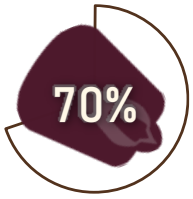
South Dakota Farmers' Perceived Extreme Weather Frequency and Adaptation Measures

Researchers at South Dakota State University (SDSU) conducted surveys of eastern South Dakota (SD) commodity crop producers with the support of the South Dakota Corn Utilization Council. Using publicly available addresses of government program participants, a random sample of 3,000 producers were sent the survey in 2018. 650 were ineligible and 708 responded to the survey for a response rate of 30%. In 2021, the same producers who took the survey in 2018 were asked to take a follow up survey. 94 were ineligible, and 350 responded for a 59% response rate. Producers could take the survey online or via mail and were asked questions about their farm, farming practices including usage of soil and water conservation practices, challenges and benefits to using conservation practices, and their attitudes about the environment. In this factsheet we are presenting results based on the responses of participants who answered weather-related questions in 2021 survey.



EXTREME WEATHER RESPONSE

Most (70%) producers indicated they were *likely to improve* their cropping practices on fields affected by extreme weather within the next 5 years.

NO GRAZING INTEGRATION

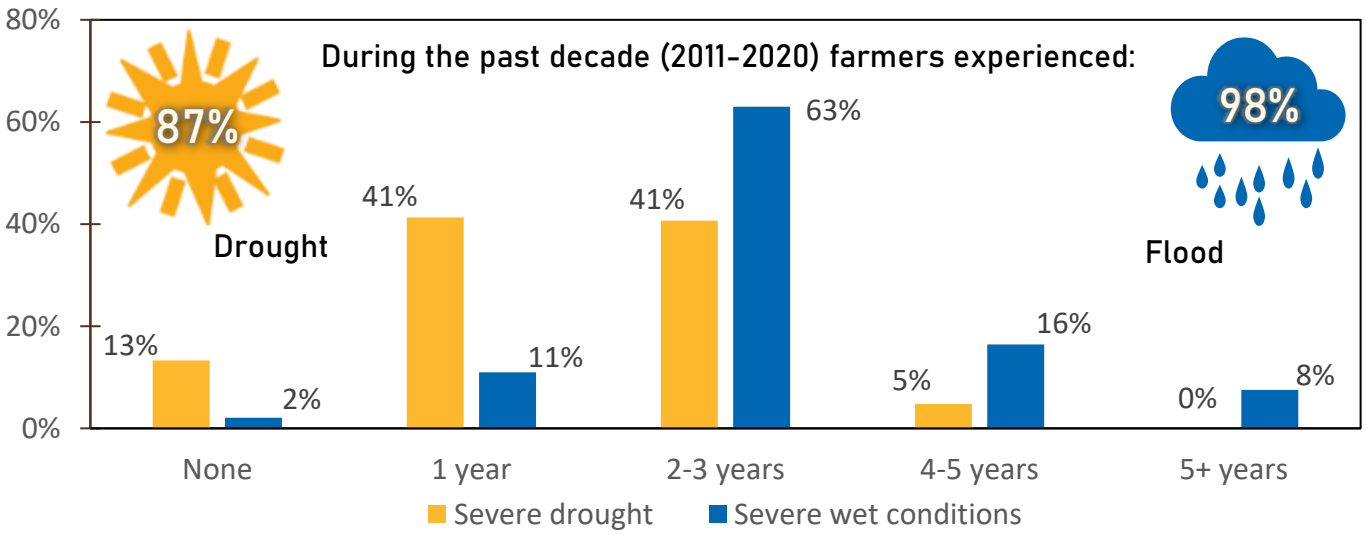
About half (49.2%) of farmers indicated that they are *unlikely or very unlikely* to integrate grazing.

IDLE FIELDS

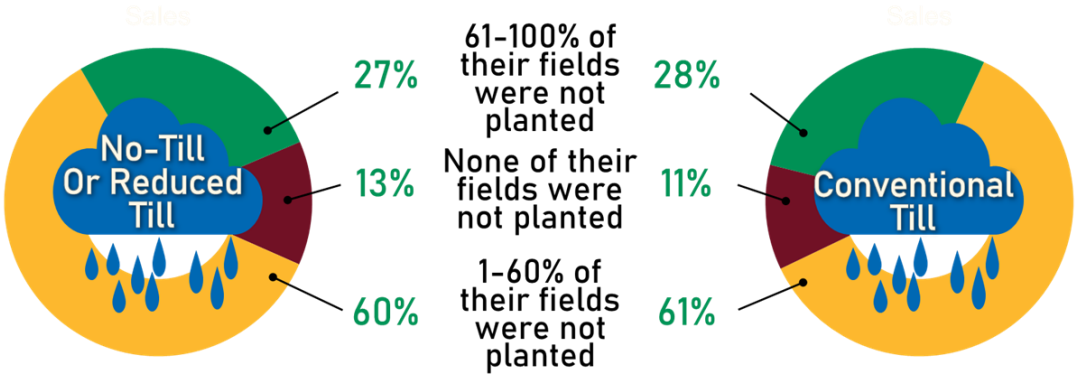
During the most recent *flooding* event, over half (59%) of farmers' fields did not produce a crop.

COVER CROPS

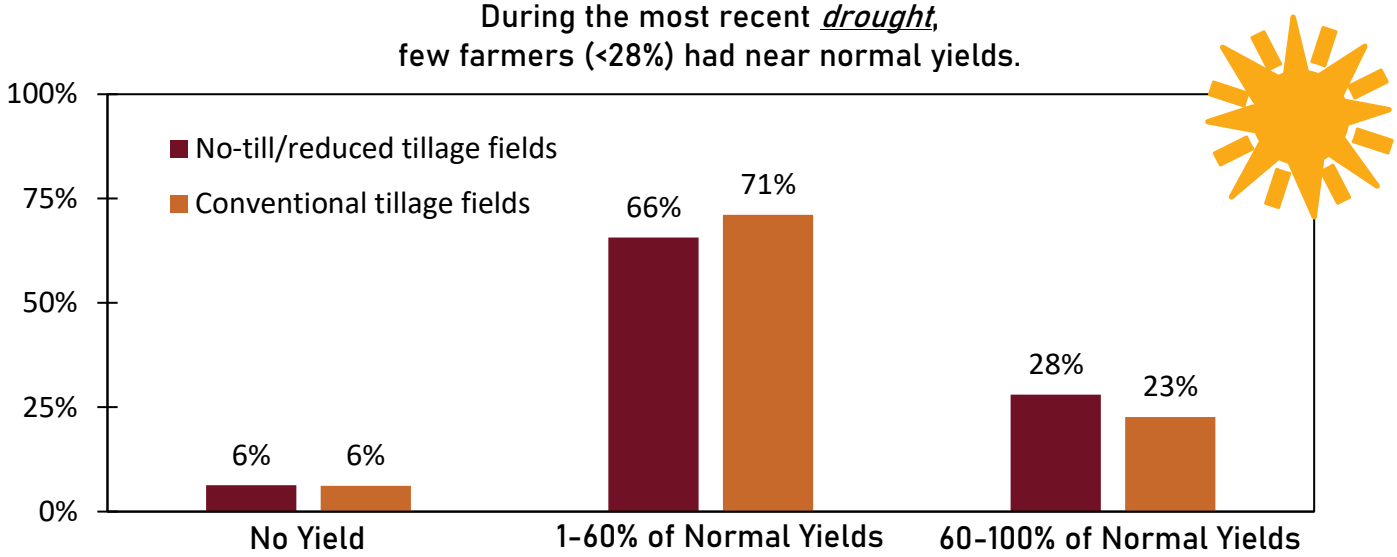
During the most recent *flooding* event, 44% of farmers planted cover crops, but only 7% did so with government assistance.



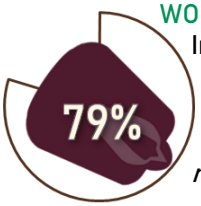
During the most recent *flood*, many (nearly 30%) farmers planted less than 40% of their fields, regardless of tillage practices.



During the most recent *drought*, few farmers (<28%) had near normal yields.



Most farmers are concerned that the weather will cause farm management issues.



WORRY ABOUT NOT ENOUGH RAIN

In 2021, only *4% of producers* indicated they were *not worried* about enough rain. Most producers worried moderately (40%) or a lot (39%) about *not enough rainfall*.

WORRY ABOUT TOO MUCH RAIN

In 2021, only *8% of producers* indicated they were *not worried* about too much rain. Most producers worried moderately (43%) or a lot (20%) about *too much rainfall*.

About half (51%) of all producers use an online decision support tool that integrates weather or climate data.

For more information about this survey research conducted with South Dakota farmers, please visit SDSU Open Prairie (https://openprairie.sdstate.edu/sdfarmsurvey). You may also contact Dr. Tong Wang (tong.wang@sdstate.edu), Associate Professor and Advanced Production Specialist at SDSU or Jim Ristau (jimr@sdcorn.org), Director of Sustainability at SD Corn to learn more.

South Dakota State University