Waterlogged Soils and Ponding

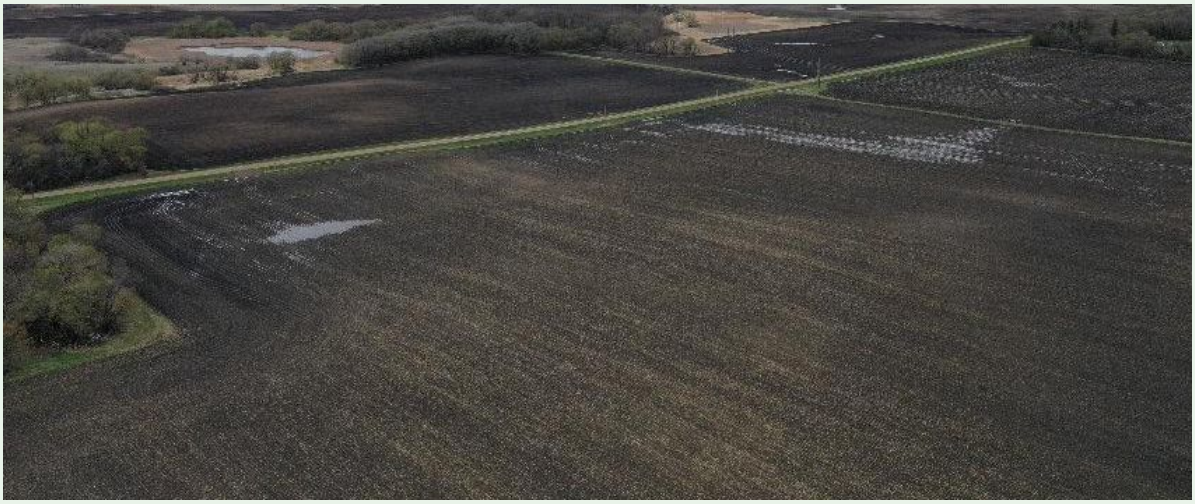
Impact on Corn Seedlings

Recent areas with heavy rains have raised the question, "How long can corn survive under water?"

This data relates to corn; however, soybeans follow a similar pattern under these conditions.

Oxygen levels in a flooded soil approaches zero within 24-hours. Without oxygen, the plant cannot perform critical life sustaining functions, such as nutrient and water uptake. If air temperatures are warm during flooding (greater than 77 degrees) plants may not survive 24 hours. Cooler temperatures prolong survival.

- Corn seed that has just been planted or has just started the germination process can generally survive 3-5 days
- Emerged corn plants that are completely submerged under water for more than 2 to 4 days will generally be killed.



Effect of Air Temperature on Corn Survival

HOURS OF FLOODING	0	48	96	144
% OF CORN SURVIVAL AT 50°	85%	75%	70%	69%
% OF CORN SURVIVAL AT 77°	82%	62%	38%	27%

Even if surface water subsides quickly, the likelihood of dense surface crusts forming as the soil dries increases the risk of emergence failure for recently planted crops. Be prepared with a rotary hoe to break up the rust and aid emergence.

GDU Update

April 22 - May 2

LOCATION	TO DATE	VS NORMAL	NORMAL
Elbow Lake	50	+14	36
Fergus Falls	50	+15	35
Herman	55	+13	42
Wahpeton	65	+23	42
Evansville	65	+23	42

GDU Calculator

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