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Court Seeds



Agronomy Notes

Winter Wheat Survival

So your winter wheat didn't make it up last fall...now what?

With the dry conditions experienced last fall many producers are worried about the survivability of their winter wheat crops. While it's always a good idea to have a backup plan, let's not give up on the crop just yet. Winter wheat is an extremely adaptable crop and can often maintain a strong yield potential in the face of delayed fall development.

The two most important factors in winter survival are cold acclimation (the development of winter hardiness) and vernalization (the switch from vegetative to reproductive growth).

While cold acclimation is mainly influenced by fall temperatures and weather patterns after emergence, vernalization can occur anytime after the germination process has begun. This means that neither emergence nor vegetative growth is required for vernalization to take place, as long as the seed has begun to

imbibe water (the first stage of germination). Winter wheat that germinated late last fall will likely survive the winter, but don't expect a robust crop this spring.

The ideal development stage for winter wheat entering winter is three or more leaves with a tiller, as this gives it the best chance of survival. Larger plants have a more developed crown and resume growth earlier in the spring, usually resulting in higher yield, earlier maturity and better weed competitiveness. With delayed development the winter survivability is only slightly reduced, but since the crop will have to rely mainly on depleted seed reserves to resume growth in the spring, the crop competitiveness and maturity will be more greatly affected.

To give the weakened crop the best chance of survival be prepared to fertilize and control weeds early in the season. Most importantly give the crop time to recover before making a spring assessment and the decision to re-seed.



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If you do decide to re-seed this spring keep in mind last year's crop and herbicides used, as well as the number of days to maturity and crop insurance deadlines for the re-seeded crop. Some of your best crop options are early maturing barley, oats, canola or soybeans, but be sure to maintain a healthy crop rotation. If re-seeding to a spring cereal it's strongly recommended you spray out any surviving winter wheat plants to control volunteers and eliminate the "green bridge" that can allow diseases and insects to move from old to new plants. Finally, keep in mind any crop seeded late in the spring will have a lower yield potential so fertilize and plan accordingly.

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