

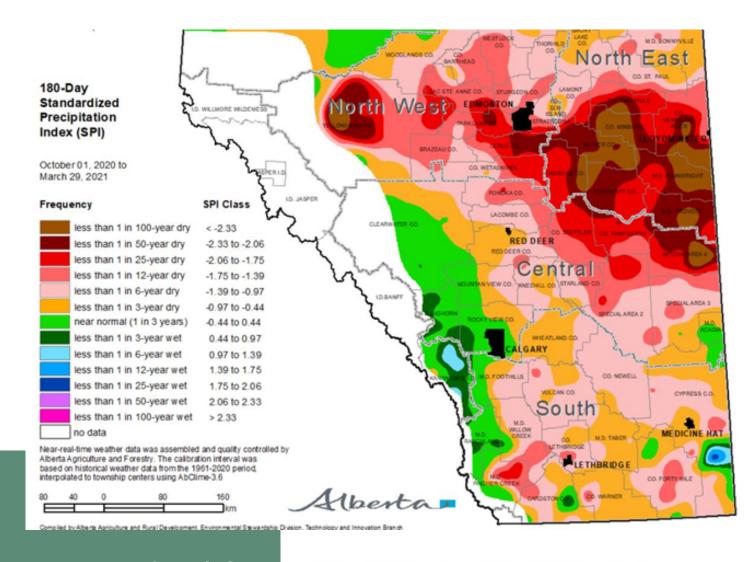
APRIL 2021

AGRONOMY UPDATE



IT'S LOOKING LIKE A DRY





As we come to the end of winter and look forward to another growing season here in east central Alberta, concerns are growing about the amount of soil moisture we will have going into this spring. And those concerns are valid. As you can see by this map, we have been well below our normal winter precipitation this year and in fact, are looking at historically dry levels for significant parts of our area. Across much of the territory we have received less than 40% of our normal winter moisture.

CONCERNS ARE GROWING

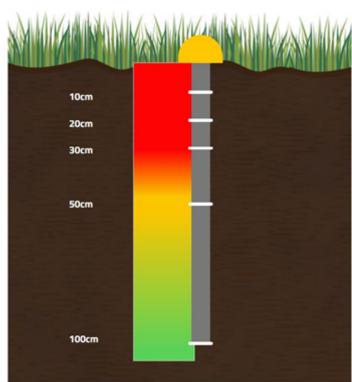
To make matters more interesting, some of the driest areas are the same ones where soil moisture was trending lower at the end of harvest. While there are places where we recorded very good soil moisture after harvest, many fields ended 2020 below the 30 year average. An example of this is how we ended last fall on our training field south of Killam. The final reading from our soil moisture probe taken on October 12th showed 2.7 inches of soil available water, which is actually very close to normal range of 2.8 to 3.2 inches for that time of year. What is concerning is **where** the water is in the soil profile. The seedbed is extremely dry and most of the moisture is pooled at the 50 cm to 100 cm depth, so while the total moisture may look normal, we are going to need spring rains to give us a decent seedbed for germination and emergence.

Soil Moisture By Depth - BRI Training Field as of Oct 12, 2020

SOIL CAPACITY RATING BY DEPTH



SOIL CAPACITY THROUGHOUT PROFILE



This is somewhat concerning, as a repeat of last year's above average in-season rainfall seems to be unlikely. Our unusually wet early summer last year was a result of a La Nina event that dumped large amounts of water on the Canadian Prairies. Right now we are at the tail end of another, atypically dry La Nina event that is rapidly dissipating. I am told this will likely leave us with "neutral" climate conditions for the spring and early summer in 2021. This means near normal precipitation and the possibility of less than ideal seedbed conditions in May. With the present poor soil moisture in the top 30 cm of the field, such conditions would likely lead to lower yields for the training field than we have enjoyed over the last 3 growing seasons.

Soil moisture conditions will vary considerably throughout east central Alberta, so the conditions I am describing will not apply to every farm or field. The point I am trying to make is that it is important to have a handle on soil moisture reserves as part of your planning process. With reasonable expectations of yield potential based on moisture, inputs and operations can be adjusted accordingly.

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