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FOR IMMEDIATE RELEASE

When is the optimal time to sow?

For a farmer, the importance of sowing time cannot be understated. Timely sowing operations can mean the difference between a three tonne crop and a two tonne crop or in recent years the difference between a harvestable crop and one that has failed. A recent innovation designed to overcome some of this uncertainty is Yield Prophet®, an online decision support tool for farmers and consultants.

Modern machinery and new varieties have meant that our sowing operations can take place over a much narrower time frame in which sowing date may be altered to take full advantage or minimize the risks associated with the prevailing climatic conditions.

When is the optimal time to sow? Unfortunately there are no hard and fast rules and the answer is heavily dependent on the season. What we do know is that the later we sow the more the theoretical yield potential decreases. A common belief among farmers in the Birchip region is that it is ideal to begin to sow on ANZAC day (25th of April). It was common practice, prior to the introduction of short season barley varieties (e.g. Hindmarsh), to sow barley crops first. This meant, in the ideal start, that wheat crops were planted in the first half of May.

Figure 1, which was generated using APSIM (Agricultural Production Systems Simulator), Yield Prophet® and historic climatic data from the Birchip Post Office, supports anecdotal beliefs about the ideal time to sow. The simulations indicate that our yield potential is maximized if wheat crops (c.v. Yitpi) in the Birchip area are sown on the 6th May. However, the crop will be exposed to significant frost (30%) and heat shock (18%) risk. If sowing is delayed until the 11th May, significant frost risk can be avoided and only a small reduction in yield potential and a slight increase in heat shock risk is realised.

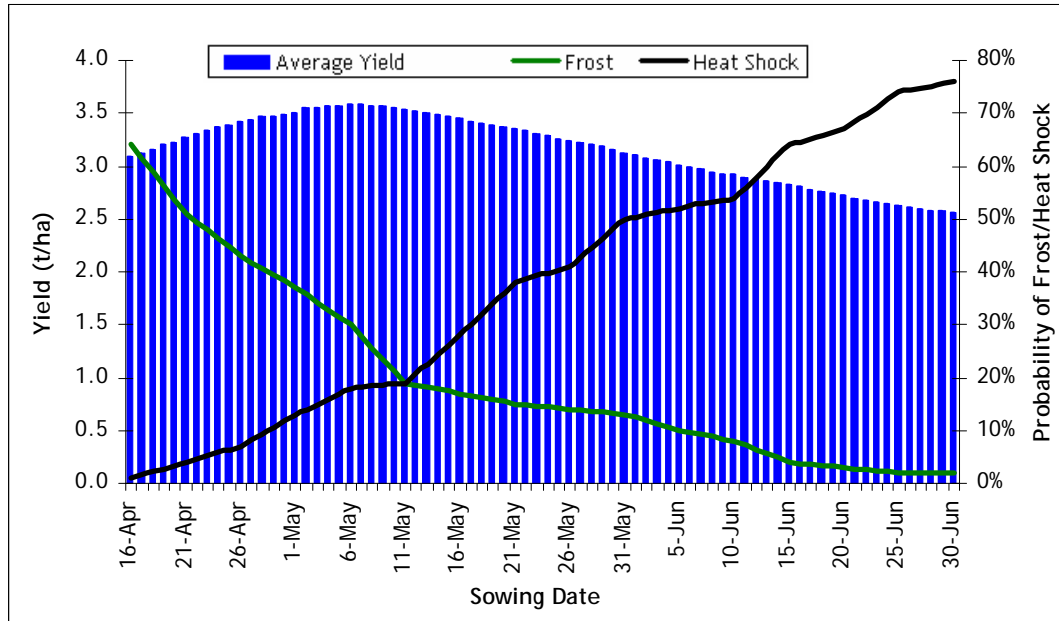


Figure 1: 100 year average nitrogen unlimited Yitpi wheat yields for crops planted from the 16 of April to the 30th of June and associated frost and heat shock probabilities.

Unfortunately, ideal sowing conditions with a significant rainfall event in early May have not eventuated in recent seasons, so we are forced to adjust and adapt. As the chart demonstrates, theoretical yield potential decreases by approximately 20kg/ha for each day that sowing is delayed post 6th May. If we are forced to postpone sowing, yield losses can be partially offset by using a shorter season variety.

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Yield Prophet® is a tool that growers can use to experiment with the yield potential of different varieties sown on different dates under the prevailing conditions. Yield Prophet® simulations generated on the 16th of April for the same paddock as the attached chart showed that a wheat crop (c.v. Young) sown on the 15th of June has the potential to achieve an extra 0.5t/ha in an average year than if the paddock was sown to another variety (c.v. Yitpi).

This example relates to a specific location on a specific soil type and is meant for demonstration purposes. As the parameters change, so will the resulting optimal sowing dates and varieties. Growers across Australia can undertake this type of analysis on their own paddocks and under their own conditions through a subscription to Yield Prophet®. For more information please visit the Yield Prophet® website at <http://www.yieldprophet.com.au>.