Rural R&D for Profit program
Final Report
Improved use of seasonal forecasting to increase farmer profitability

Appendix 19

AgriFutures™
Improved Seasonal Forecasting

APPENDIX 19

Detailed responses regarding barriers and enablers, as suggested by respondents.

BARRIER	COMMENTS THAT RELATE
LACK OF KNOWLEDGE / CLIMATE LITERACY	Lack of understanding and historically poor experiences with forecasting
	Lack of access to people who understand forecasting and could explain it to them (ie. staff in DAF probably wouldn't have the knowledge to help directly)
	Lots of info on websites with little support to help understanding and decision making
	Need to provide a climate service rather than just information on websites etc. so producers build relationships with local advisers to gain confidence and understanding to integrate climate forecasts into decision making
	Limited understanding knowing which ones to use/when having confidence in the forecast
	Probabilistic forecasts is difficult concept
	Frightened of consequences if wrong decision
	Limited understanding of probabilistic forecast information specifically by both farmers and particularly key influencers of and informants to farmers, including extension officers etc..
	Low climate literacy generally
	Capacity limitations in farm business
(PERCEIVED) LACK OF ACCURACY/RELIABILITY	Skill level, timing - when there is skill to the models - it is too late
	Greatest barrier is scepticism about reliability of forecasts - much easier to remember failures of forecast than when BoM get it right
	Poor skill of forecasts at key times and locations
	Perceived lack of accuracy
	Lack of aggressive forecasts - need 70% plus chances to get greater action
	SCF failures without doubt. 6 out of 7 GCMs and statistical models showed above average rain and cooler temps this summer. The observations were record dry and hot weather. I have lots of discontent users of SCF on file after the extreme and unfavourable growing season making reference to the poor forecast
	Multiple climate model output that provides varying forecast output and therefore mixed messaging
	Perceived lack of skill in forecasts (linked to low literacy in terms of understanding strengths and limitations of the use of probability based forecasts)
	Outright scepticism about forecast value and skill linked to above
(PERCEIVED) LACK OF SPECIFICITY	Lack of location specificity - likelihood of 10mm in 200km squared isn't very useful if it only rains in 10km squared
	Timeliness is good as forecasts are now updated on a fortnightly basis. However, the big question is not just the amount of rain, but when is it going to fall? There is still a big gap between the 5 day forecast and the 1 month outlook from BOM. A 28 day forecast broken down into weekly chunks would be really helpful.
	The main factor is that currently, there is no seasonal forecast specific for viticulture. This is a lost opportunity because most growers need information starting in August/September when seasonal forecast skill is generally high
	Low levels of engagement in the sugar industry between Research/Forecasters/Product developers and farmers to

	customise forecast information and its packaging for ease of use by industry
OTHER	One minute news grabs are usually too general and often misleading
	I think one of the barriers is that we consider the forecasts to be entirely separate to the 7 day weather forecast. We really need to move to is a forecast service that starts at today and moves seamlessly to the 3-6 month period
	I question why there is so much emphasis on understanding the intricacies of the models and all of the climate drivers. Naturally the Bureau are technically minded and love to talk about all those things, but do you really need to understand it all to use the forecast? The Bureau employs people to do all of that and consider it in the forecast. I think it is over complicating the issue with using the forecasts, and is a barrier for entry to the vast majority of famers do not have the time

ENABLER	Comments that relate
IMPROVED ACCESS TO INFORMATION	Unsure. Some workshops starting to happen. We are keen to run more but generating interest is difficult. Reliability of forecasts would increase adoption
	Greater awareness of the 3 month climate outlook service by BoM. More frequent update's of the 3 month outlook information provided to producers that puts the seasonal outlook information into context (i.e. including BOM forecast information as part of an overall package with info on current pasture condition, livestock condition, historical rainfall data etc.)
	Local relevant examples of other farmers using them and how they have used them
	Better comms - BoM, The Break etc
	Increased need to produce quality product (FAQ not good enough now)
	Farmers having some tough seasons - and production failures prompting increased awareness of SFC info
	Workshops, USQ monthly update and weekly weather/climate email updates (which are now ceasing due to lack of funding support by industry)
INCREASED SUPPORT	Explanation of the benefits of seasonal forecasts/improved climate driver prediction at growers meetings
	Climate advisers located in regional towns
	Showing how a forecast can be used in decision making
INCREASED TRUST IN THE FORECASTS	Building trust and relationships with producers
	Using local data and showing when forecasts are and are not likely to be useful
	People seeing climate variability and more recently climate changes
	In general the skill of forecasting has increased over the last 10 years, particularly with the introduction of dynamical modelling. The broader reach of the forecasts, particularly through videos on Landline may have also helped. There still remains a very large portion of the Ag sector that does not use seasonal forecasts at all, so there is plenty more work to be done
	Good trusted commentary by The Break and also they get to lots of field days and speaking sessions and each time I learn a bit more. Weather is critical for farming but not many trusted messengers we usually either have BoM or nothing