

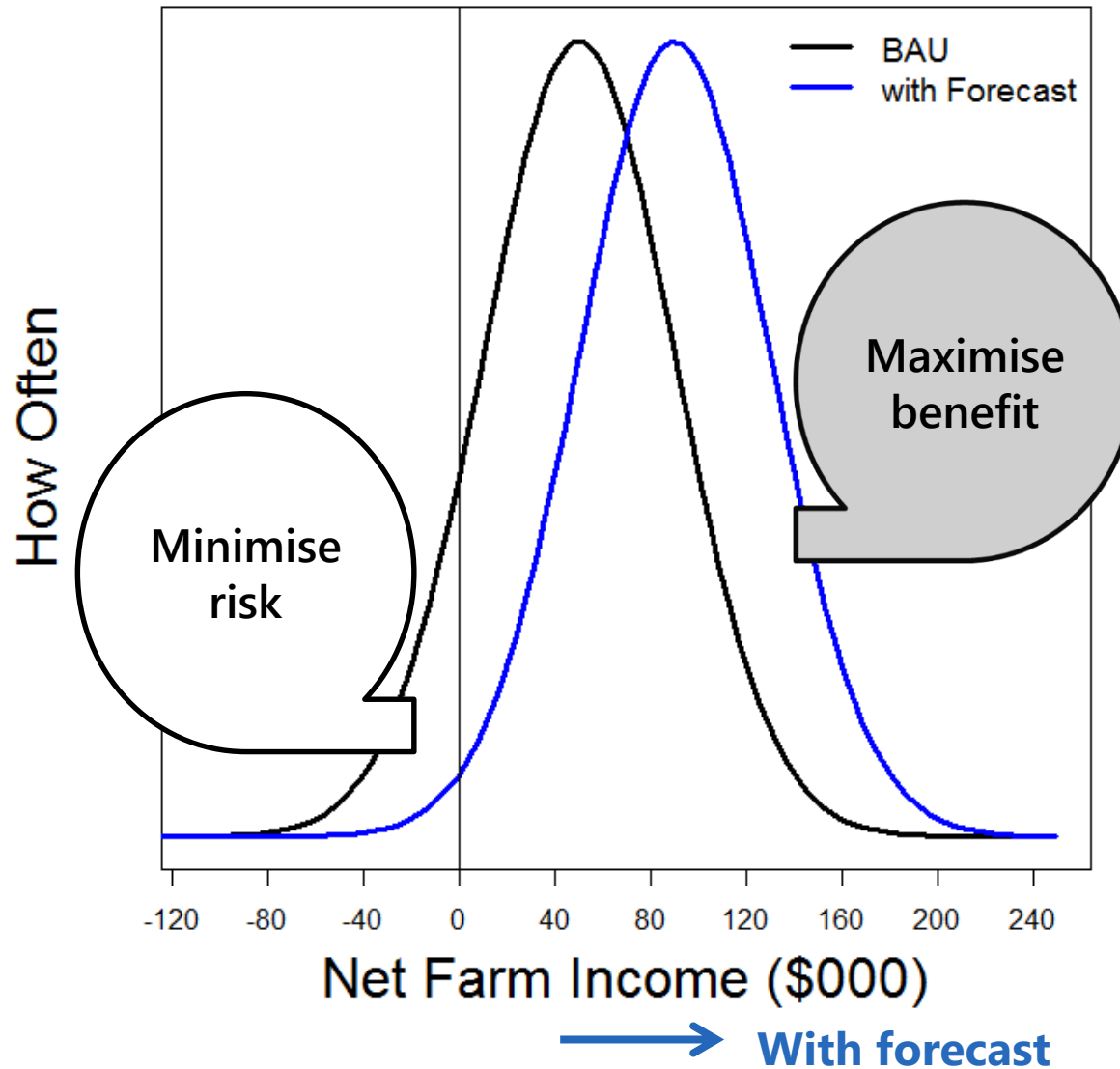


Department of
Primary Industries

What's the value of climate forecasts?

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\$ Potential of Forecasts



Cut to the Chase

“Do climate forecasts have value to Australian cotton growers?”

“Yes, but it depends”



Investment vs Value

Investment in Forecasts

1. \$ Public and RDCs
2. Your time

Value of Forecasts

???



What's In

Simple Decision-making

What is \$ value of forecasts?

Circumstances are they valuable?



What's In

Exploring decision environments for:

1. Dryland cotton in Bungunya QLD

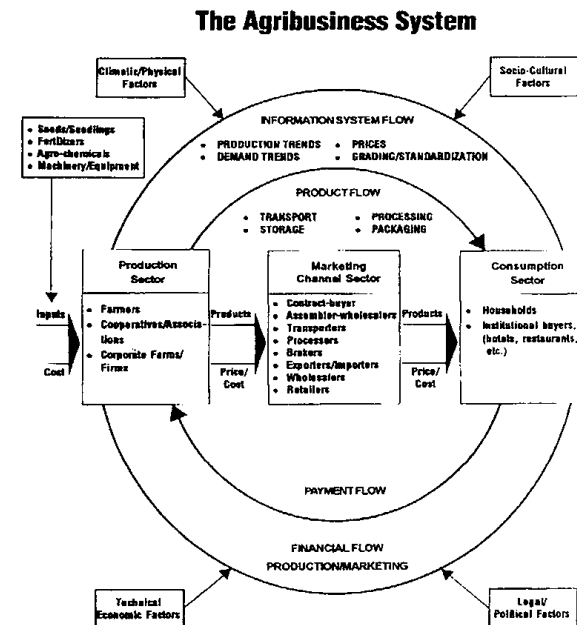
2. Summer crop choice in Gunnedah
NSW

What's Out

Best forecast,
interpretation,
weather, etc



Details specific to
your farm



What is Value?

Changes a decision

'baseline' decision = assume average rainfall

'forecast' decision = incorporate rain forecast

If baseline = forecast = no value

What forecast?

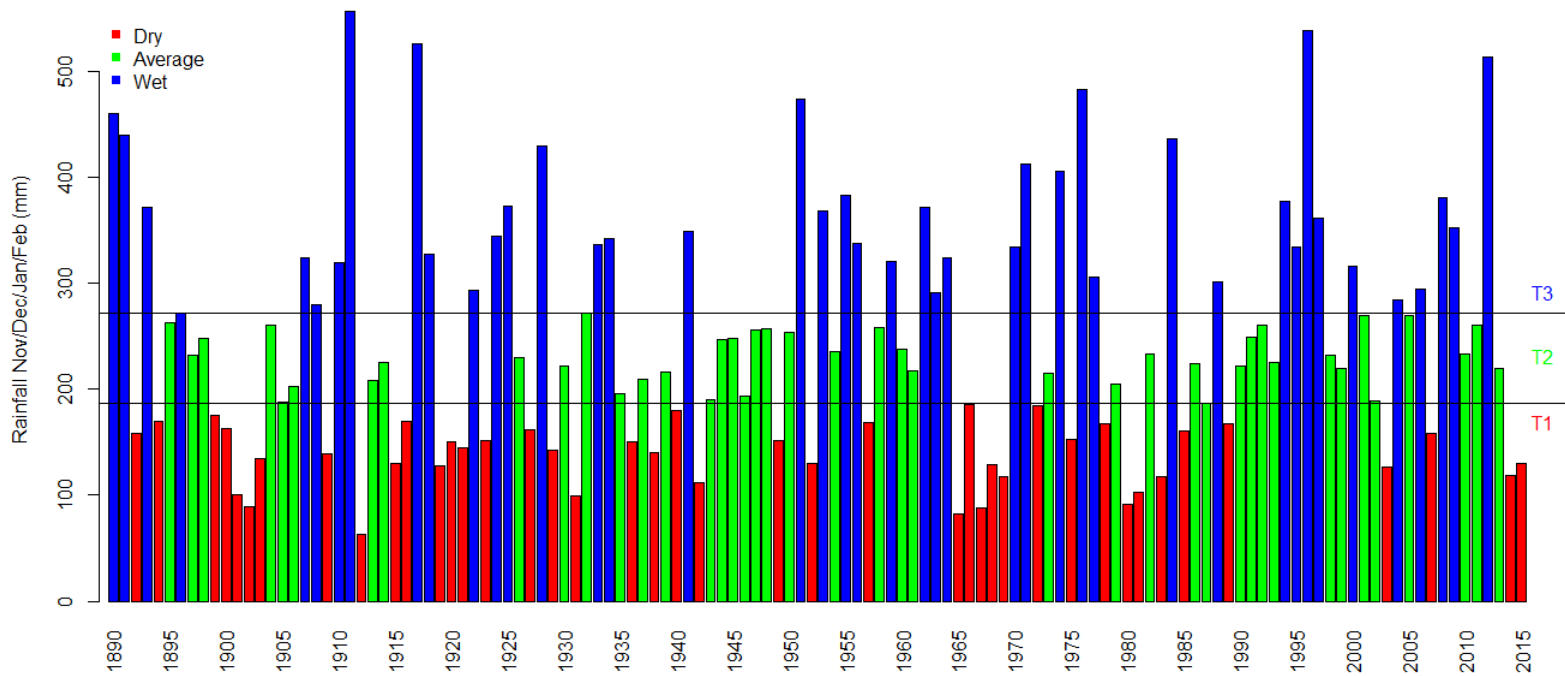
'Average'

'Dry'



'Wet'

Bungunya



Decision Environment Influences Value

Dry/ Ave/ Wet

Soil Moisture at Planting
(%PAWC)

100%	?	?	?
75%	?	?	?
50%	?	?	?
25%	?	?	?

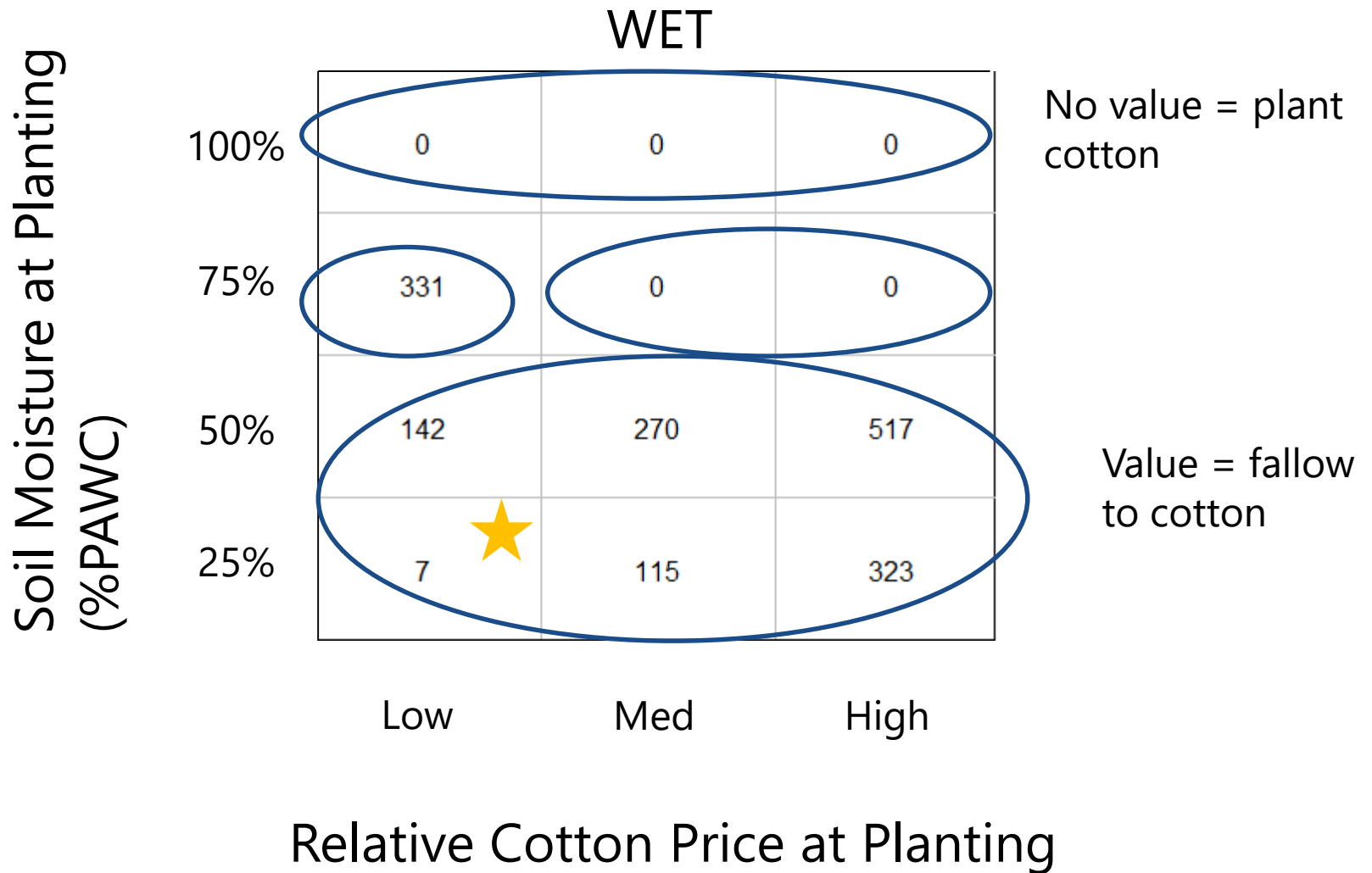
Low

Med

High

Relative Crop Price at Planting

Value (\$/ha) 'Wet' Forecast (dryland cotton)



Value (\$/ha) 'Dry' Forecast (crop choice)

Dry

Soil Moisture at Planting
(%PAWC)

100%	?	?	?
75%	?	?	?
50%	?	?	?
25%	?	?	?

Low Med High

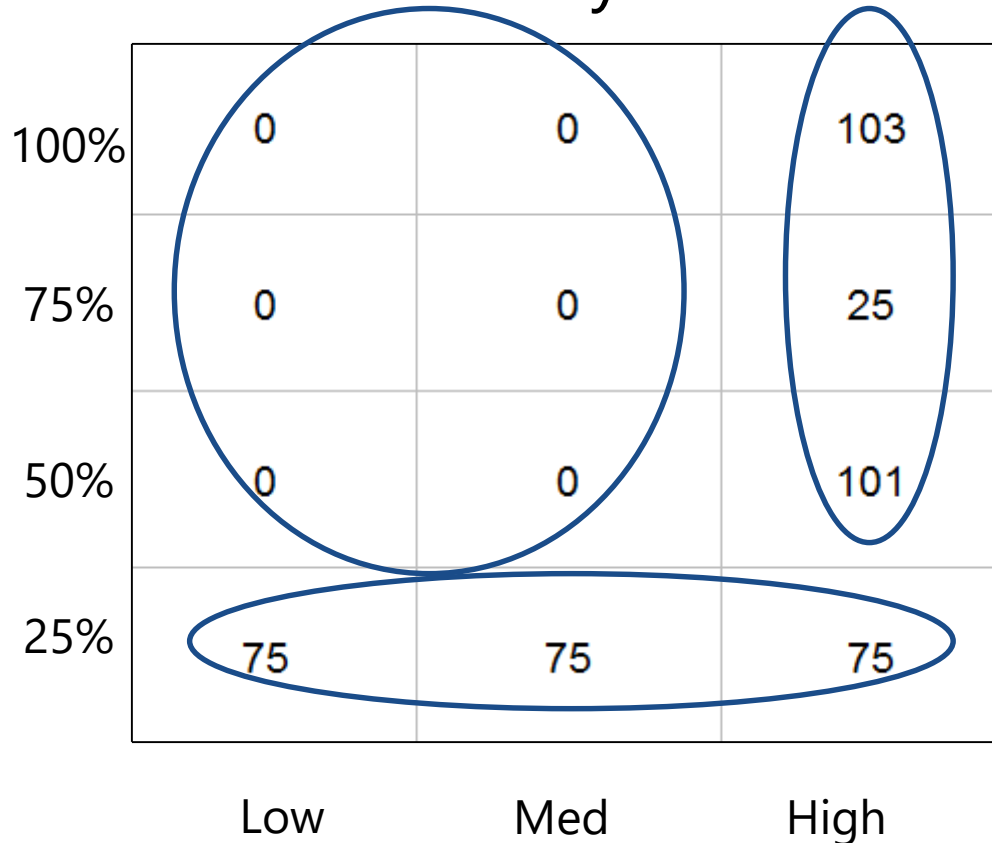
Relative Sorghum Price at Planting

Value (\$/ha) 'Dry' Forecast (crop choice)

No value = dry forecast doesn't change crop choice

Dry

Soil Moisture at Planting (%PAWC)



Value = sorghum to MB

Value = MB to Fallow

Relative Sorghum Price at Planting

Value (\$/ha) 'Ave' Forecast (dryland cotton)

Soil Moisture at Planting
(%PAWC)

100%	0	0	0
75%	0	0	0
50%	0	0	0
25%	0	0	0
	Low	Med	High

No value!

Relative Cotton Price at Planting

Maximum Potential Forecast Value (\$/ha)

Dryland Cotton	Summer Crop Mix
\$0/ha to \$517/ha	\$0/ha to \$290/ha

Key Findings

1. 'News-worthiness' = value
e.g. wet forecast with low stored soil moisture
2. Decision environment influences value
e.g. high stored soil moisture, go for it (\$0/ha)
3. No to low value average forecasts
ave is similar to climatology
4. Imperfect forecasts less valuable

Therefore...

“Do climate forecasts have value to Australian cotton growers?”

“Yes, but it depends”

(how much to invest?)

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