



When is continuous wheat or barley sustainable?

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Wheat on wheat..



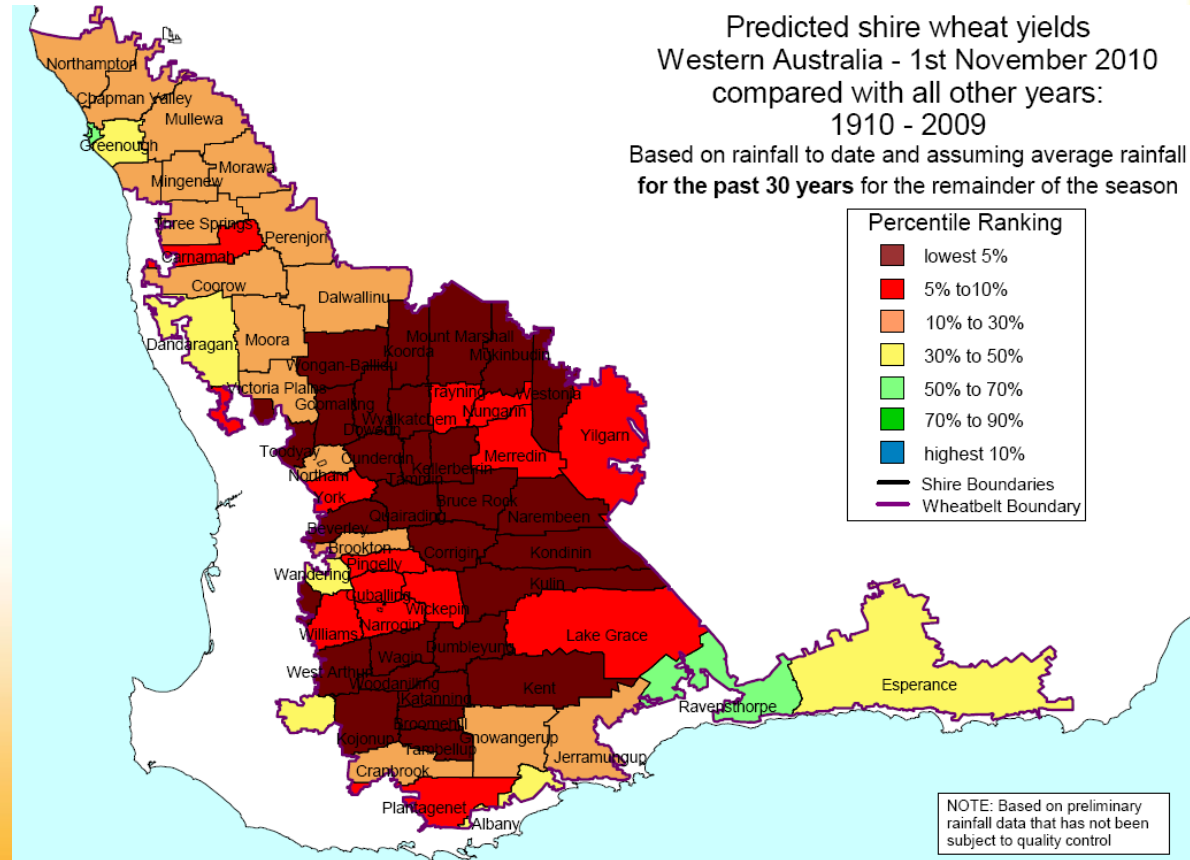
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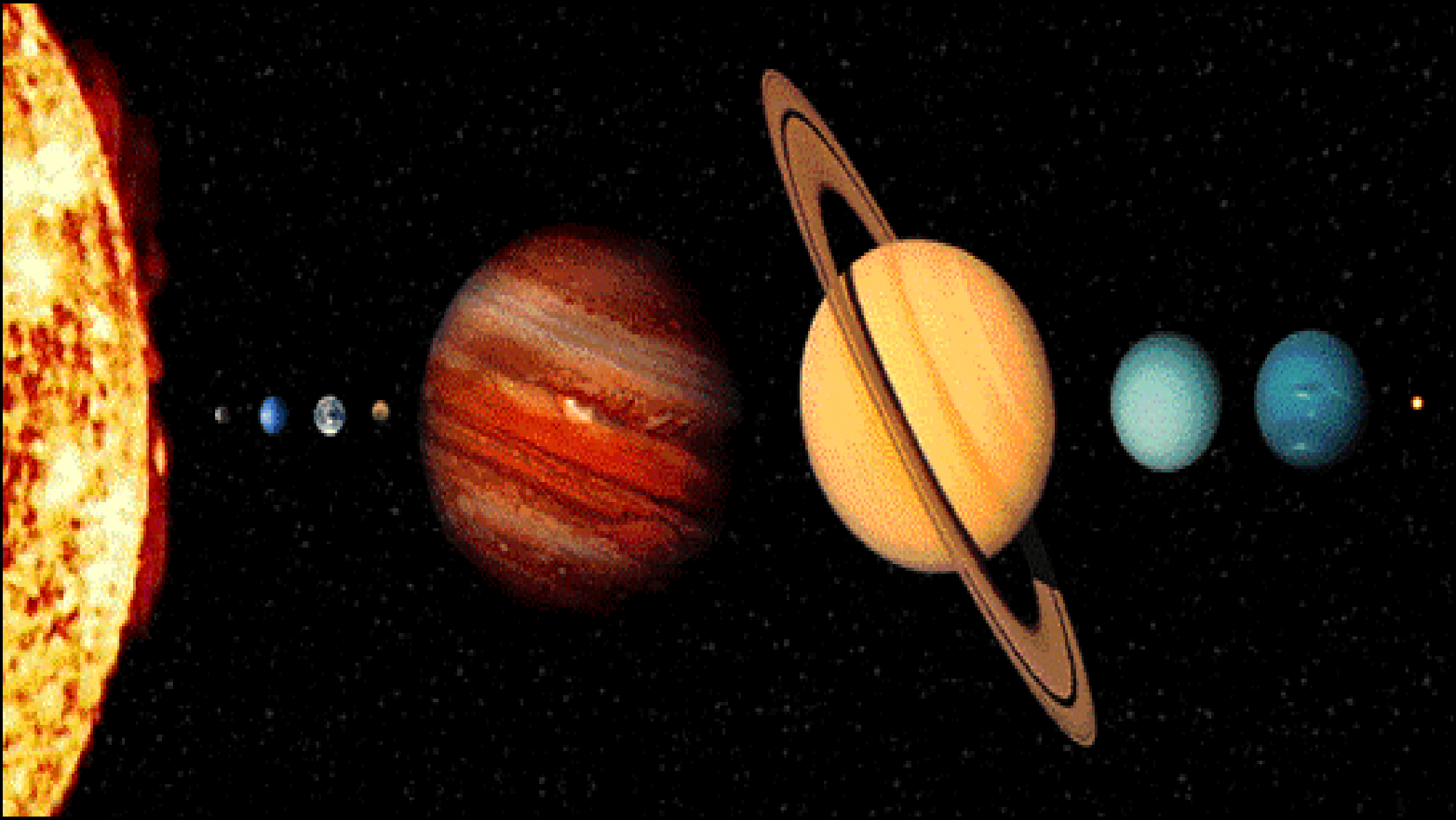


- after a dry season or
- for the future

Predicted shire wheat yields
Western Australia - 1st November 2010
compared with all other years:
1910 - 2009

Based on rainfall to date and assuming average rainfall
for the past 30 years for the remainder of the season







High rainfall



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- Rotations as usual
- Manage disease
- Know you soil nutrient status
- Manage weeds





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Low rainfall- testimonials





John at Pindar



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- Yes – with our technology
 - Break crop after 2 years and trying to incorporate fallow
 - Dependent on soil type
 - Low input system
 - Seeding cut off date 12th of June (unless there is a late finish but when does that happen?)





Brian at Tardan



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- No: don't want to get rid of sheep (finally making money)
 - Would have to use too much chemical for weed control – Brian





Darren at Morowa



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- Yes but not a big advocate
 - only on reliable country. 3yrs of wheat on pasture - Darren





Low rainfall- consider



- Soil type
- Disease load
- Stored soil moisture
- Cut off dates for seeding
- Low input system





Medium rainfall



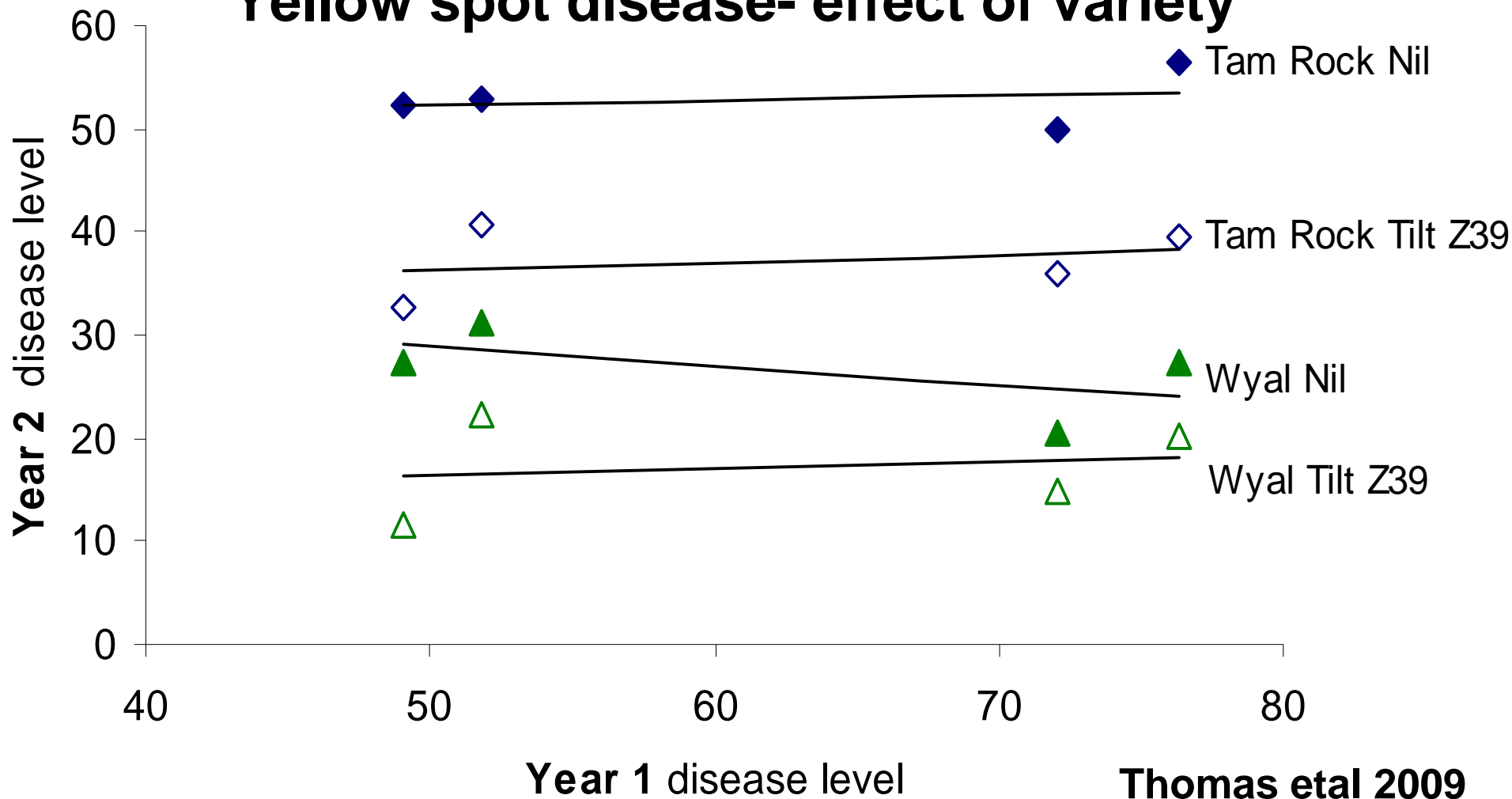
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- Support with knowledge
- Disease
- Weeds
- Nutrition



Yellow spot disease- effect of variety



Thomas et al 2009



Continuous cropping AND managing RLN ?

Crop 2005 / 2006	<i>P. neglectus</i> /g soil anthesis 2006	Yield (t/ha)
S / S Wheat / Wheat	11.3	1.52
S / M Wheat / Wheat	95% 7.9 65%	25% 1.61
M / M Wheat / Wheat	3.8	1.63
R / M Field pea / Wheat	0.5	2.02

Source
Vanstone,
DAFWA



Location	Soil type	N content (0-10cm)	N content (soil profile)
Wongan Hills	Yellow sand	19	72
	Yellow sand	25	96
Morowa	Red loam	44	196
	Yellow sand	21	206
Perenjori	Red loam	29	127
	Brown clay	25	150



Root disease risks

WHEAT:

Crown rot, rhizoctonia bare patch and nematodes

BARLEY:

Net blotch, rhizoctonia bare patch and nematodes





What about ... 2012



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Source Seymour



What about ... 2012



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Zone	Wheat yield after lupin	Diff in Wheat Yld of L/W & W/W	Lupin yield in previous year
High	1.8	0.6	1.0
Med	1.8	0.5	1.4
Low	1.3	0.4	0.8



Source Seymour



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GRDC
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Development
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Thank you

Ciara Beard, Geoff Thomas, Bill MacLeod, Vivien Vanstone

