



How will more P-efficient pasture systems be achieved in southern Australia?

**Presented by:
Dr Richard J Simpson**

P use efficiency in mining, agriculture, food processing I



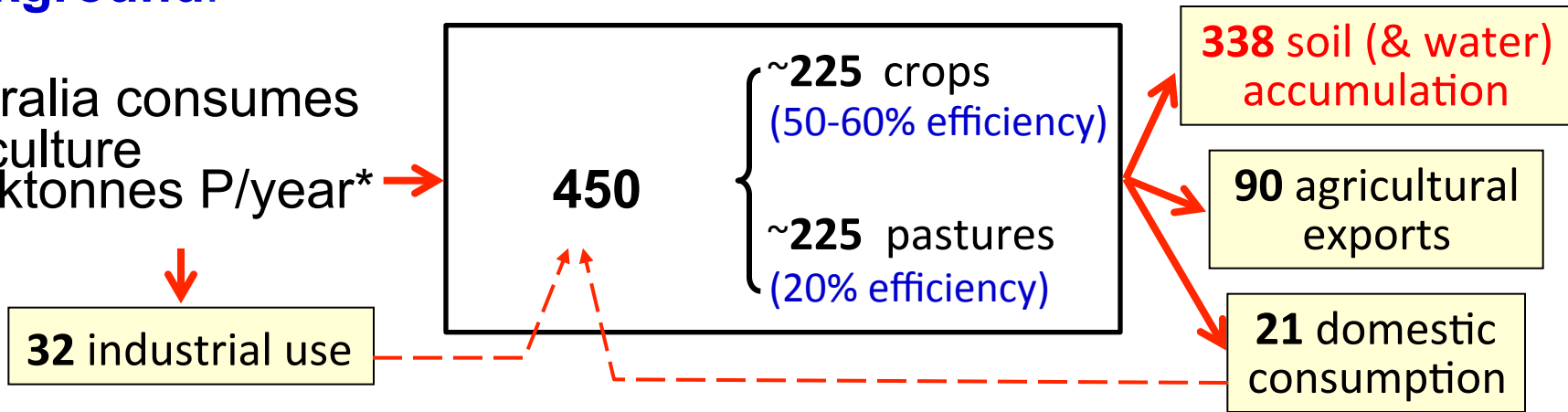
How will more P-efficient pasture systems be achieved in southern Australia?



Richard Simpson & Alan Richardson (CSIRO Sustainable Agriculture Flagship)

Background:

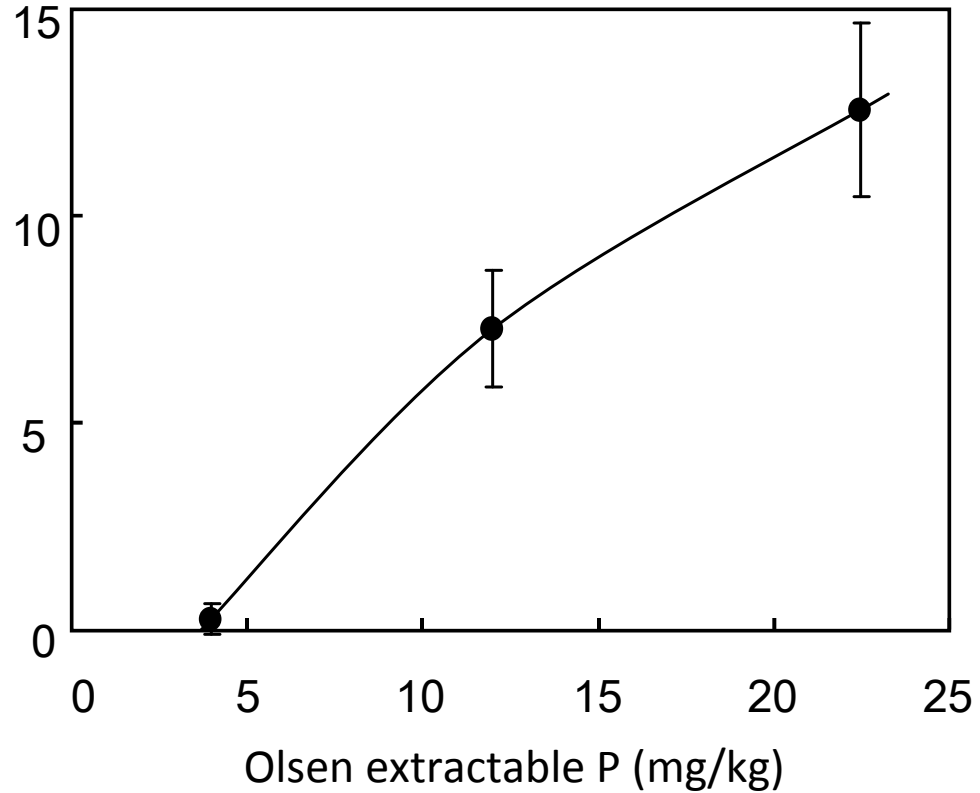
Australia consumes agriculture
482 ktonnes P/year*



Recycling may potentially supply 5% - 10% of the P required for agriculture

P-balance data from a fertilised grazing expt (2001-2006) near Canberra, Australia

P accumulation*
in paddocks
 managed with maintenance
 fertiliser inputs
 (kg P/ha/year)

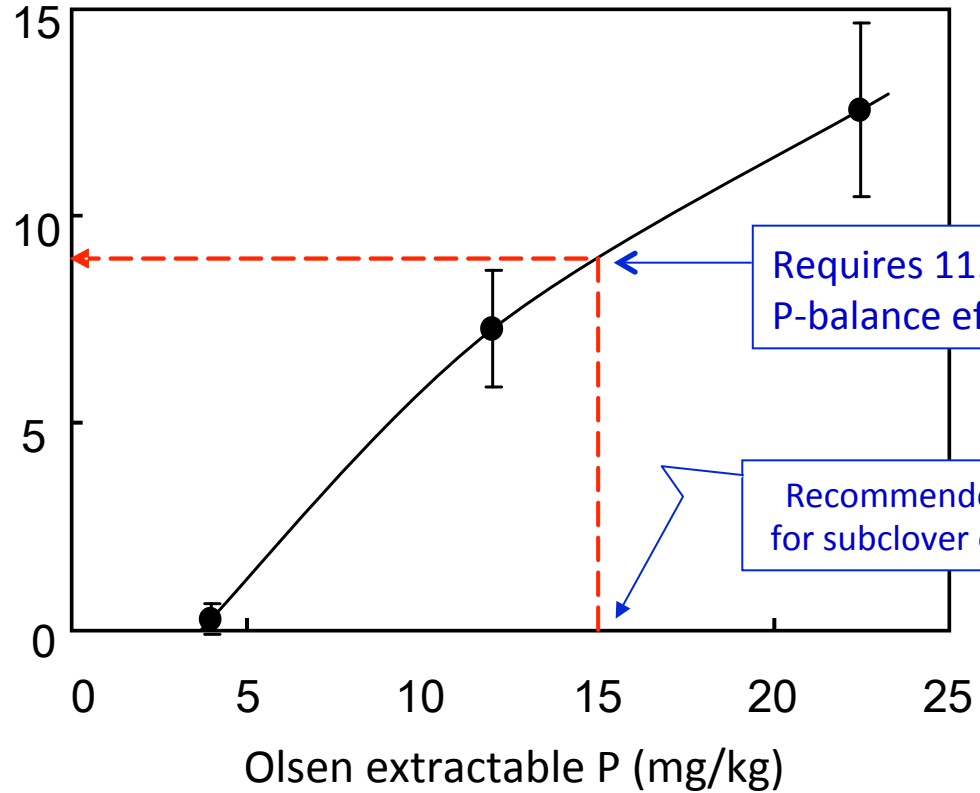


Level at which soil P fertility was maintained



*Source: Simpson et al. 2010

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in paddocks
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 fertiliser inputs
 (kg P/ha/year)

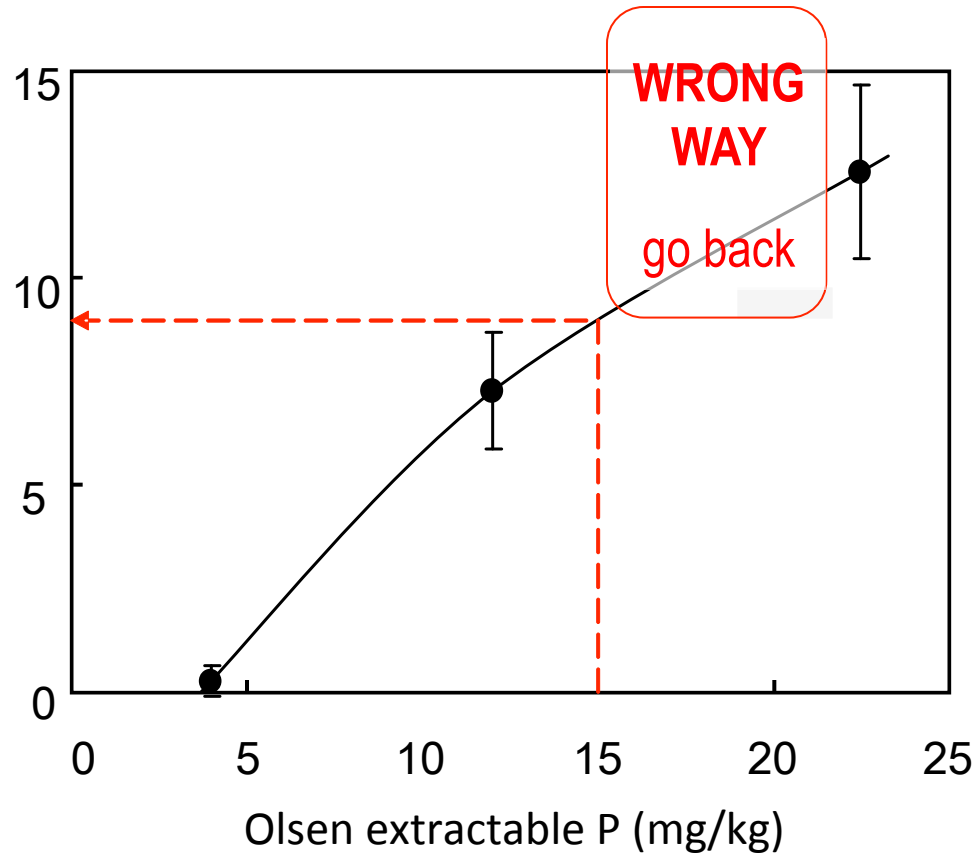


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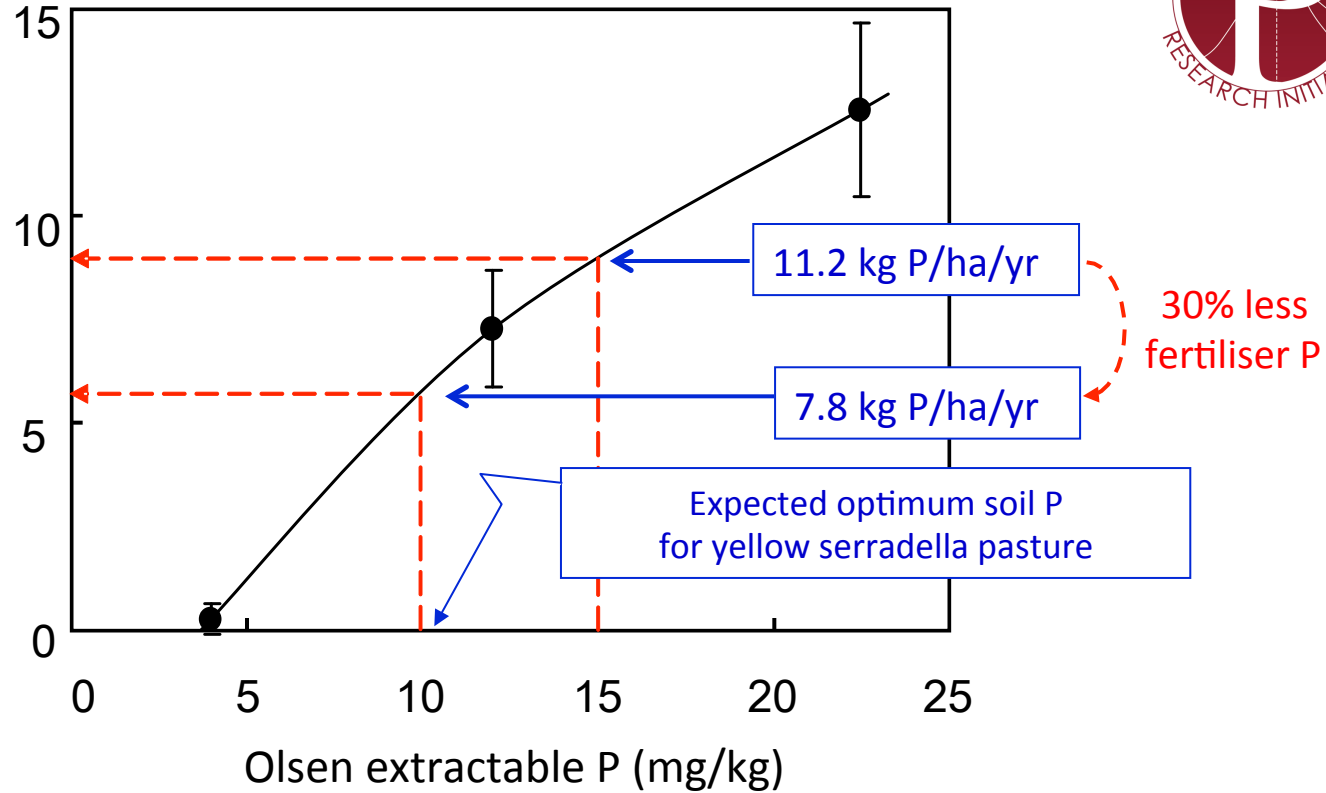
Level at which soil P fertility was maintained

P-efficiency options:
(1) avoid over fertilising;



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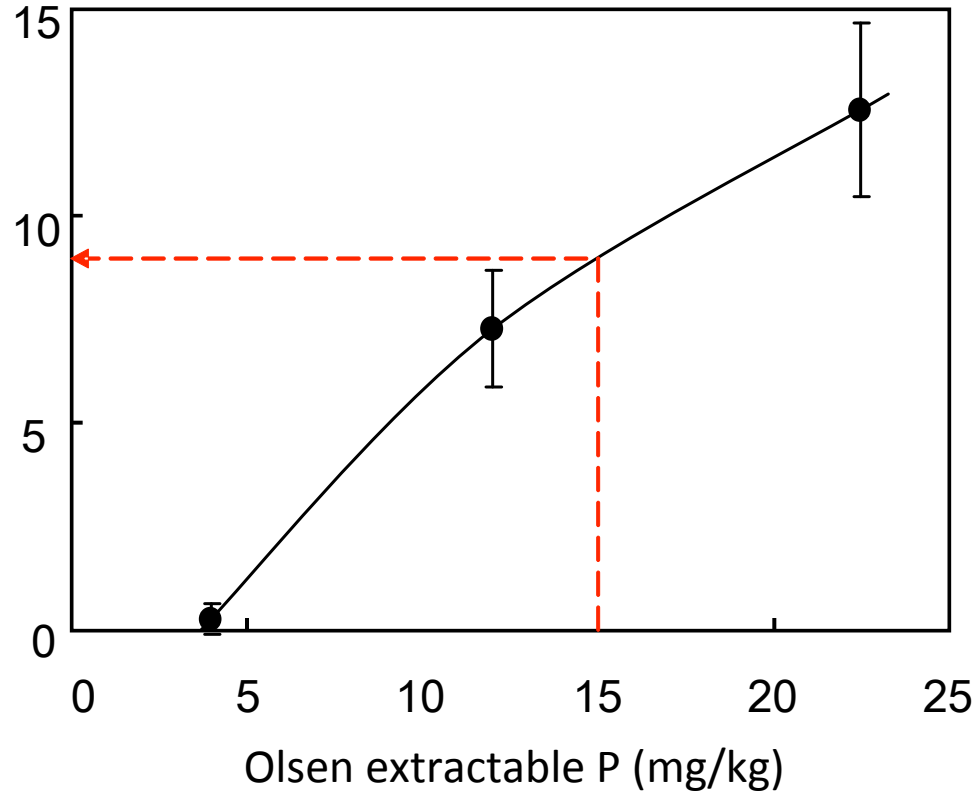
P-efficiency options:

- (1) avoid over fertilising;
- (2) use low 'critical-P' legumes;



*Source: Simpson et al. 2010

P accumulation*
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Level at which soil P fertility was maintained

P-efficiency options:

- (1) avoid over fertilising;
- (2) use low 'critical-P' legumes;
- (3) novel fertilisers (?)



*Source: Simpson et al. 2010