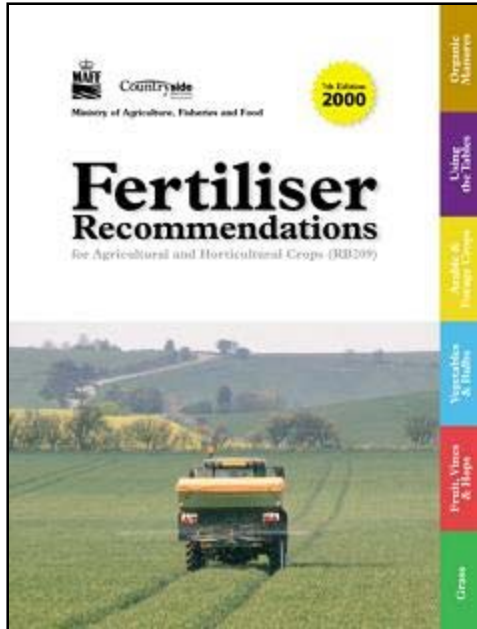




The New RB209 – The Independent Advisor's View

Andrew Watson



Independent advice on over 3.5 million acres

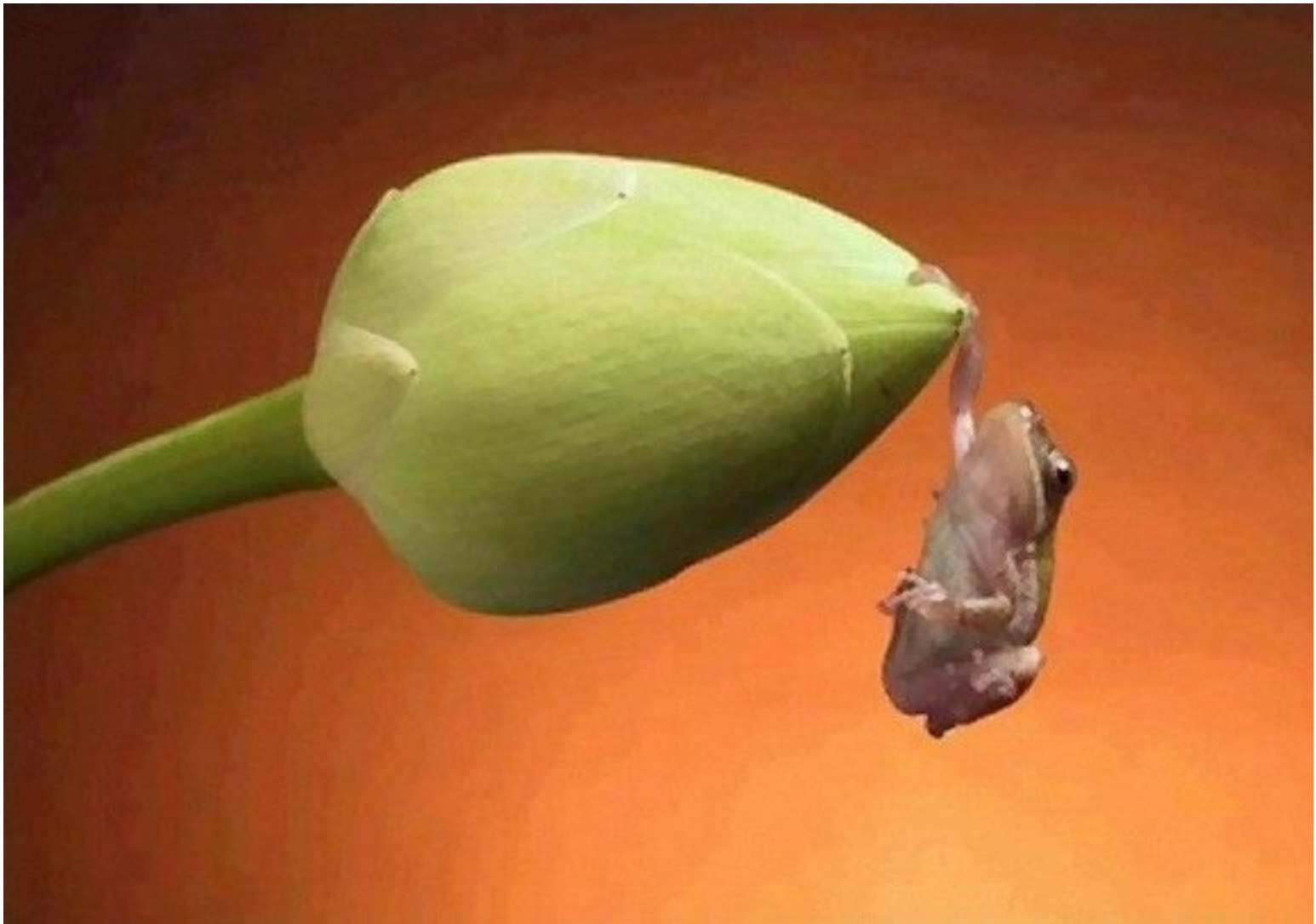
The “Old” RB209



Sometimes it's a uphill struggle to use



Difficult to ignore



In fact, you can be living dangerously if you ignore

Most of the time happy to use





and content to milk
it for information



The “Old” RB209




- 🔥 Most commonly used information source for fertiliser and manure use
- 🔥 Cereals 2007 Questionnaire – 84% of farmers or their advisors use for nitrogen planning
- 🔥 Although much of RB209 is fine, consensus for updating of the 2000 edition

Topics for Updating

- 🔥 Soil Nitrogen Supply (SNS) Tables
- 🔥 N requirements after rotational set aside
- 🔥 N requirements for Milling Wheat and Modern Varieties
- 🔥 More detail Micronutrient information

Updated SNS Section

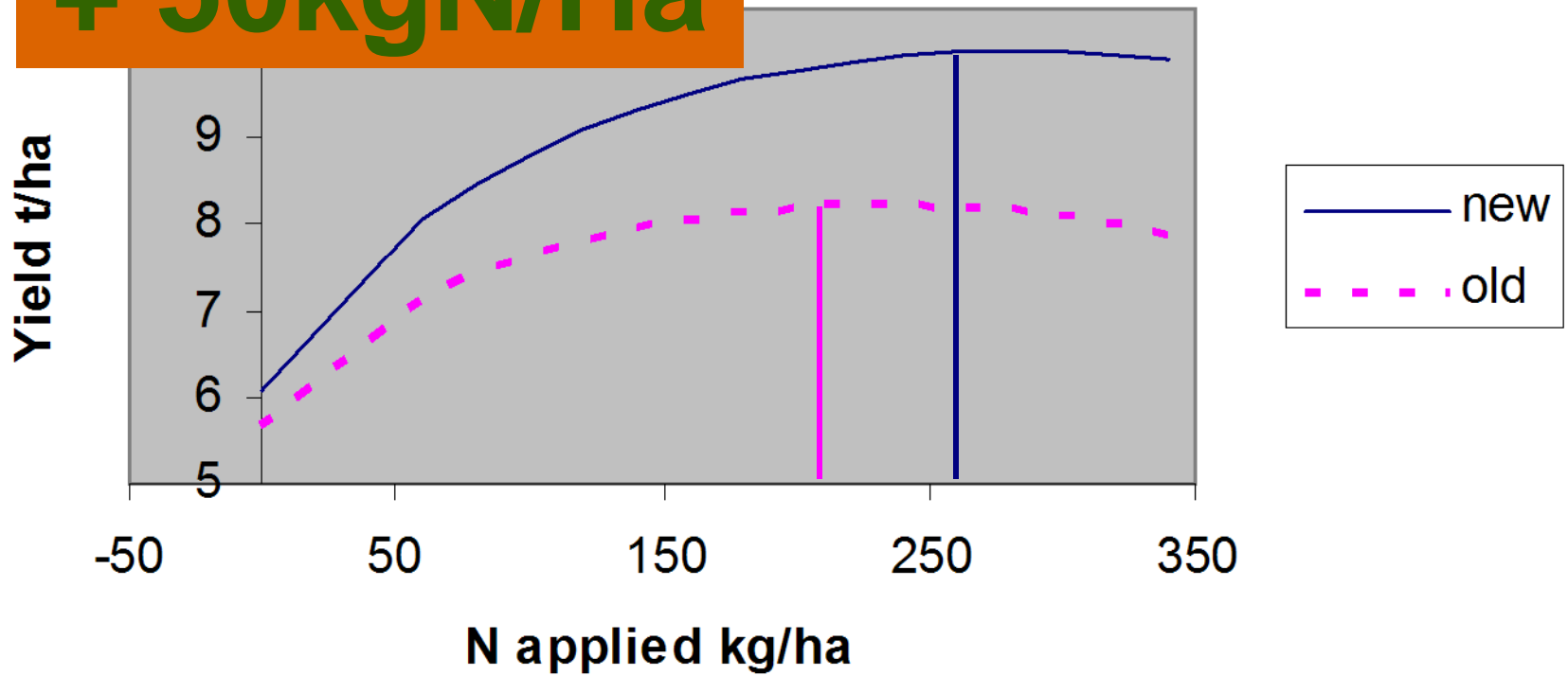
- 🔥 Clearer explanation of difference between SNS and SMN
- 🔥 2 Methods for calculating SNS Index retained (SMN sampling and SNS rainfall/previous crop tables)
- 🔥 Revised and simplified SNS Tables

	SNS Index Moderate Rainfall Area						
	0	1	2	3	4	5	6
	SNS (kg/ha N). SNS = SMN (0-90 cm soil depth) + crop N + estimate of net mineralisable N						
	<60	61-80	81-100	101-120	121-160	161-240	Over 240
Light sands or shallow soils	Cereals,OSR, Potatoes, Sugar beet , Low/Med Veg, Forage	High N vegetables, Peas, Beans , Set-aside	*	*	*	*	*
Medium soils		Cereals, Sugar beet, Low N Veg Forage (cut)	OSR, Peas Beans,Potato Med N Veg, Set-aside	High N vegetables	*	*	*
Deep clayey soils		Cereals, Sugar beet, Low N Veg Forage (cut)	OSR , Peas Beans, Potato Med N Veg, Set-aside	High N vegetables	*	*	*
Deep silty soils		Cereals, Sugar beet, Low N Veg Forage (cut)	OSR , Potatoes , Med N Veg, Set-aside	Peas, Beans	High N vegetables	*	*
Organic soils				All crops			
Peat soils					All crops		

Effect of New Varieties

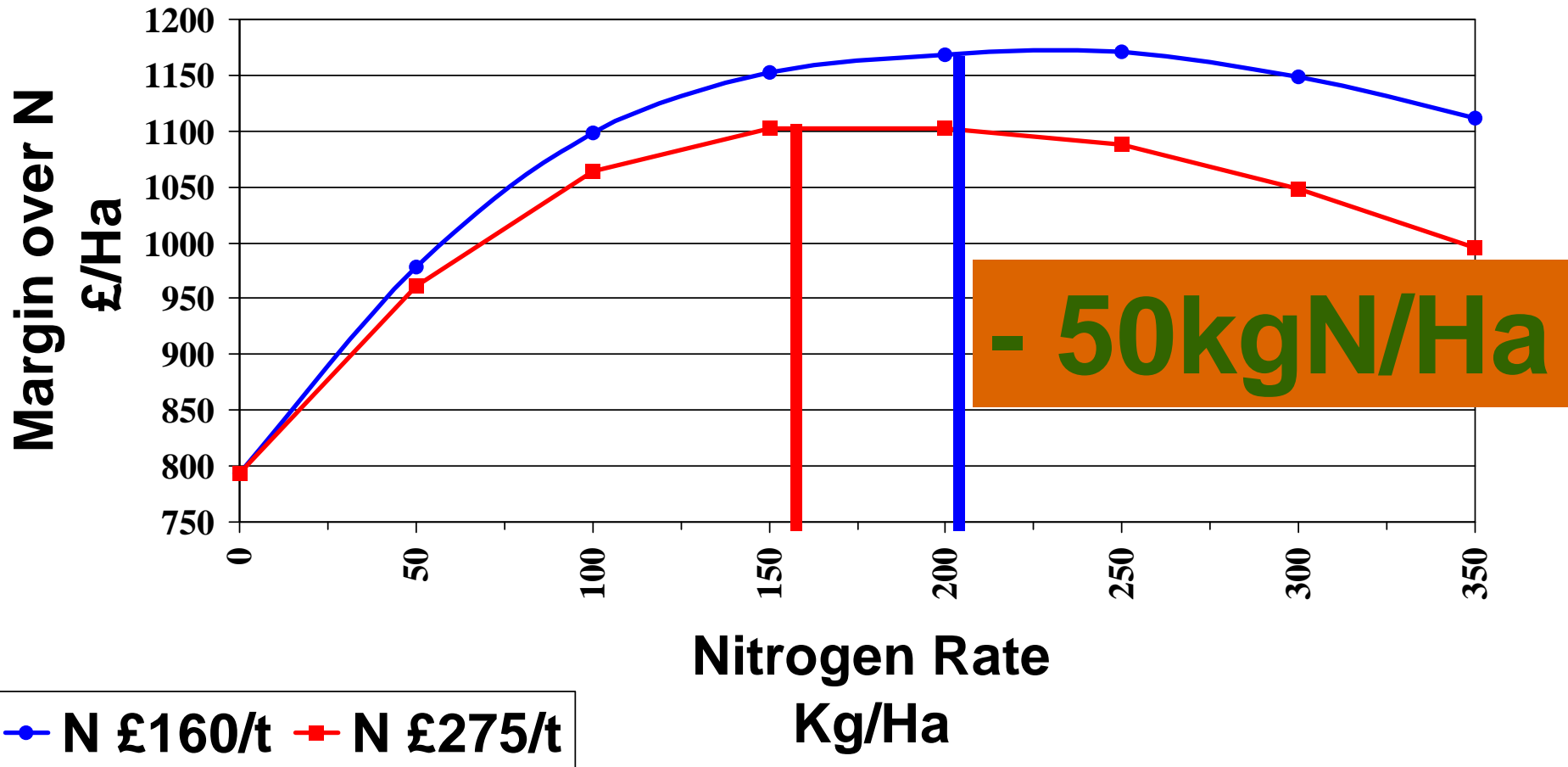
new varieties vs old

+ 50kgN/Ha



Effect of Nitrogen Price

Wheat Margin vs Nitrogen Spend



Wheat £130/t AN 34.5% £160/t Optimum 200-250kg/ha

Yield	Value/t	Crop p/kg	GM/Ha	N Rate/Ha	AN Price/t	N p/kg	Ratio:1	N Cost/Ha	Margin/ha
9.8	£130	13.0	£1,274	350	£160	46.4	3.6	£162	£1,112
9.9	£130	13.0	£1,287	300	£160	46.4	3.6	£139	£1,148
9.9	£130	13.0	£1,287	250	£160	46.4	3.6	£116	£1,171
9.7	£130	13.0	£1,261	200	£160	46.4	3.6	£93	£1,168
9.4	£130	13.0	£1,222	150	£160	46.4	3.6	£70	£1,152
8.8	£130	13.0	£1,144	100	£160	46.4	3.6	£46	£1,098
7.7	£130	13.0	£1,001	50	£160	46.4	3.6	£23	£978
6.1	£130	13.0	£793	0	£160	46.4	3.6	£0	£793

Wheat £130/t AN 34.5% £275/t Optimum 150-200Kg/ha

Yield	Value/t	Crop p/kg	GM/Ha	N Rate/Ha	AN Price/t	N p/kg	Ratio:1	N Cost/Ha	Margin/ha
9.8	£130	13.0	£1,274	350	£275	79.7	6.1	£279	£995
9.9	£130	13.0	£1,287	300	£275	79.7	6.1	£239	£1,048
9.9	£130	13.0	£1,287	250	£275	79.7	6.1	£199	£1,088
9.7	£130	13.0	£1,261	200	£275	79.7	6.1	£159	£1,102
9.4	£130	13.0	£1,222	150	£275	79.7	6.1	£120	£1,102
8.8	£130	13.0	£1,144	100	£275	79.7	6.1	£80	£1,064
7.7	£130	13.0	£1,001	50	£275	79.7	6.1	£40	£961
6.1	£130	13.0	£793	0	£275	79.7	6.1	£0	£793

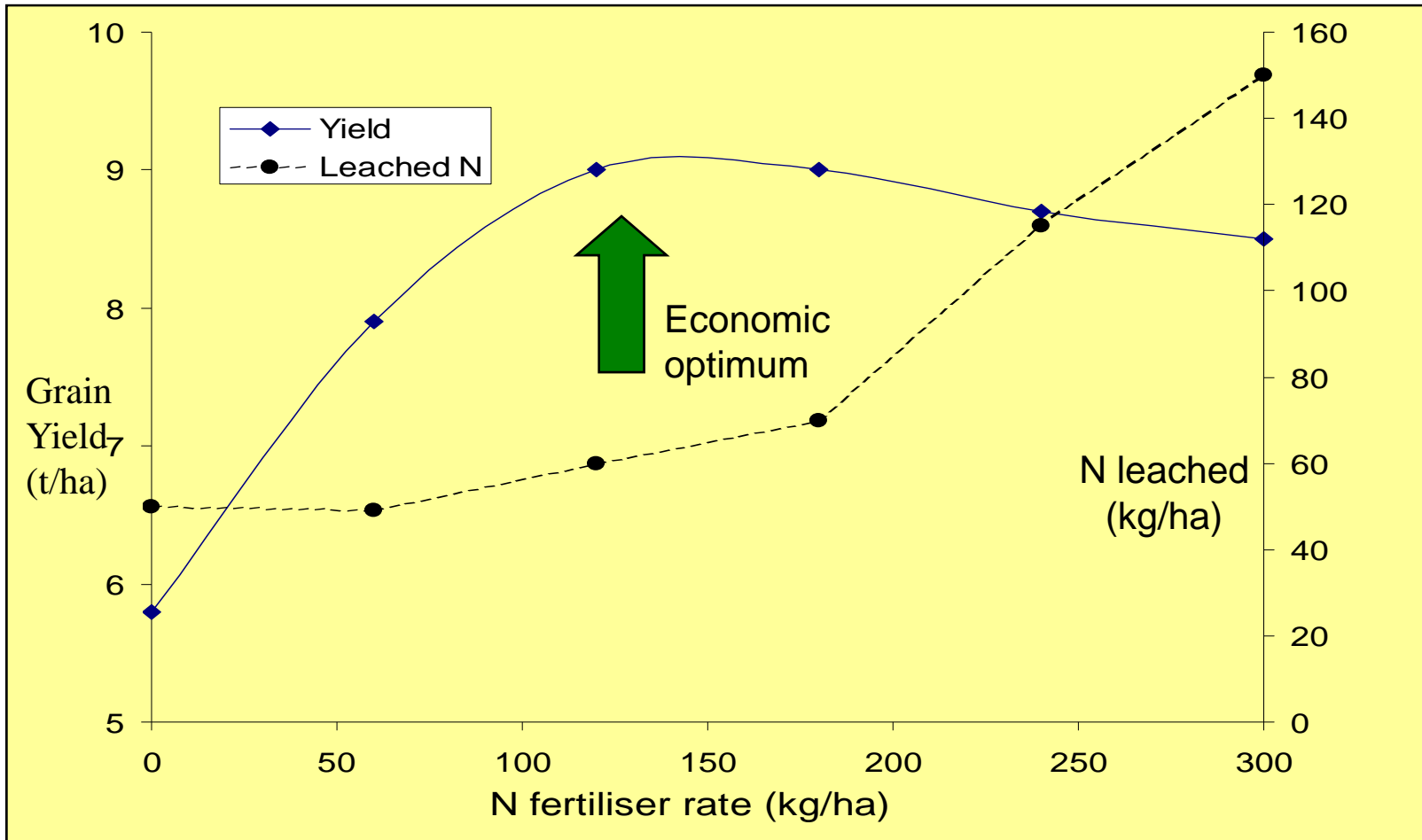
Nitrogen Rates Comments

- 🔥 New varieties need more N to achieve optimum yields (approx 50 Kg N/Ha more)
- 🔥 Projected N prices for next season suggest that economic optimum rates should be cut approx 50 Kg N/Ha
- 🔥 However, optimum N rates are very field and farm specific
- 🔥 The optimum N rate is a range not specific amount

Economic or Environmental

- 🔥 Much debate whether the new RB209 should be based on environmental or economic optimum rates of fertiliser
- 🔥 Strong consensus to base on economic rates based on the best available science
- 🔥 The new RB209 will also have comprehensive information on the environmental implications of fertiliser use
- 🔥 In many situation, economic and environmental consideration coincide.

Fertiliser N rate and leaching-arable



N applied in excess of the economic optimum has a disproportionate impact on leaching loss

NVZs and RB209

- 👉 New rules for NVZs expected this Summer
- 👉 New RB209 to be launched later this year
- 👉 How will the 2 publications work together?

NVZs and RB209 (cont)

- 🔥 Old RB209 was used as a regulatory tool by the EA and any N rates above book levels needed to be justified
- 🔥 The new RB209 will be a guidance document showing economic fertiliser rates
- 🔥 The new NVZ rules will add additional restrictions to these guidance levels

Nitrates Consultation Supporting Paper F1 – Maximum Nitrogen Limits (Nmax)

Table 1. The maximum nitrogen (Nmax) limits

Crop	N max (kg/ha N)	Standard yield (t/ha)
Wheat, autumn or early winter sown	220 ^{a,b,c}	8.0
Wheat, spring-sown	180 ^{b,c}	7.0
Barley, winter	180 ^{a,b}	6.5
Barley, spring	150 ^b	5.5
Oilseed rape, winter	250 ^{d,e}	3.5
Sugar beet	120	n/a
Potatoes	270	n/a
Forage maize	150	n/a
Field beans	0	n/a
Peas	0	n/a
Grass	360 ^{f,g,1}	n/a

NVZs and RB209 (cont)

- 🔥 The new RB209 will no longer be the regulatory tool it use to be, particularly if all England is designated an NVZ.
- 🔥 Some clarification needed on the authorised use of farm manure sampling vs standard analysis figures in RB209 or NVZ regulations.

What's in an Name?

- 🔥 RB209 is an old MAFF code for “Recommendation Book 209”
- 🔥 The “RB209” name was strongly requested by many organisations involved in developing the new book as a useful “brand”
- 🔥 DEFRA prefer to drop the code and see the new book as going beyond recommendations and into comprehensive guidance

To be RB209 or not

- 🔥 DEFRA want “ Fertiliser Manual”
- 🔥 Developers suggest “ Nutrient Management Manual RB209”
- 🔥 Compromise including “RB209” as a sub-title discussed

Engaging with Farmers

- 🔥 Many farmers and/or their advisors already use RB209 but there are a significant minority of farmers using fertiliser in a traditional and historical way
- 🔥 No longer can farmers afford to put “3 bags/ac on” because that’s what we have always done
- 🔥 This minority are at risk both on environmental and economic grounds for excessive or inappropriate fertiliser/manure use



The Future

- 🔥 Very high fertiliser prices will reduce fertiliser use
- 🔥 Integrated use of manures and fertiliser will increase
- 🔥 Spring applications of manure to growing crops will increase both as a result of NVZ and economic pressures
- 🔥 The role of a revised RB209 as a guidance document and independent advice to apply this guidance will become more important



Thank You



Largest Provider of Independent Advice to UK Arable Farmers