Crops KT Department

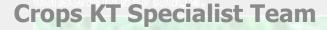
To transfer sustainable science based advice to maximise farmer profits and support the wider crops sector.

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Michael Hennessy (Head of Department)

Specialists - Mark Plunkett, Shay Phelan, Ciaran Collins

Joint Program (Malt barley) - Eoin Lyons

EIP Project – Jimmy Staples,



Research Programme Structure

- 4 Programmes
 - » Food
 - » Animal and Grassland
 - » Crops, Environment and Land Use
 - Crops KT Department

» Rural Economy And Development

Advisory Service 300 advisors



The Department

- 4 FTE in Department
 - Special projects
 - » Industry
 - » EIP Grass weeds
 - » Masters students (Cd)
 - Intensive support for 16
 FTE B&T Tillage advisers





Department Focus

 To transfer sustainable science based advice to maximise farmer profits and support the wider crops sector



- Leadership in the area for the wider organisation (Approx. 250 FTE advisors/teachers)
 - Support KT activities for all crops
 - Develop relevant messages
- The wider industry
 - Providing information/catalysis for change
 - Developing joint industry initiatives





Integrating Research and Knowledge Transfer

Researchers create new knowledge



Stakeholders participate in programme reviews

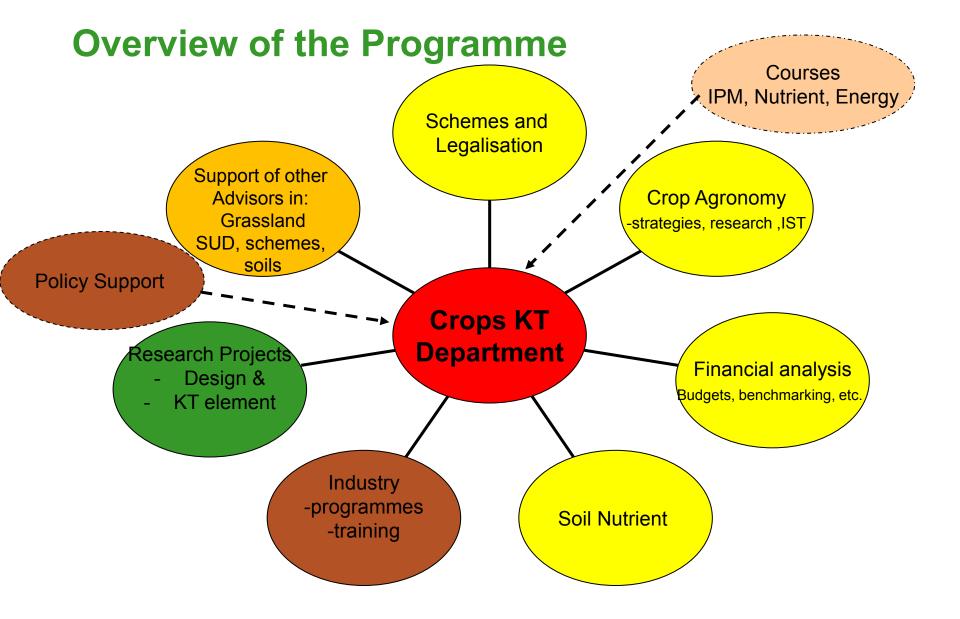


Specialists mould this knowledge into information for farmers



Advisers work with farmers to implement the new technology







Advisory model - operational version of Teagasc AKIS



BETTER farms
Tillage – 3
Demo farms
ECT 10
Malt Barley (JP) 6

12,000 Discussion Group members

45,000 Clients

140.000 Farmers









beef programme





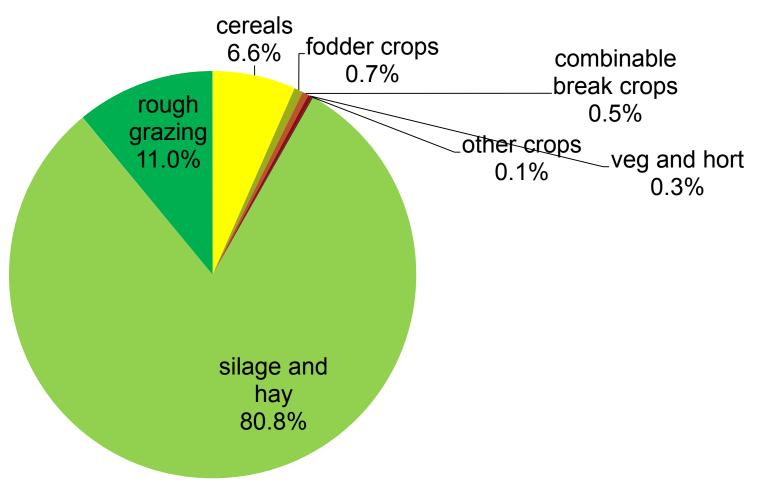
Farming in Ireland

- Total land area
 - 6.9 million hectares
- Total agricultural area
 - 4.4 million hectares
 - 80% grassland
 - 8% arable
- Forestry
 - 745,000 hectares





Land use total area 4.4 m hectares



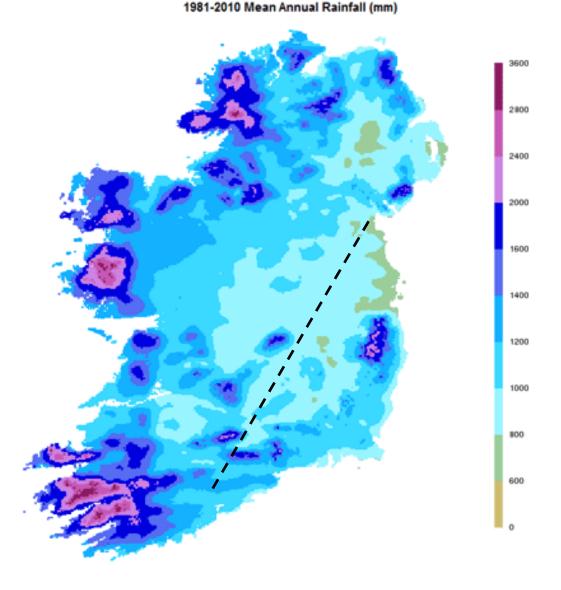


Irish Climate

How Often Does it Rain?

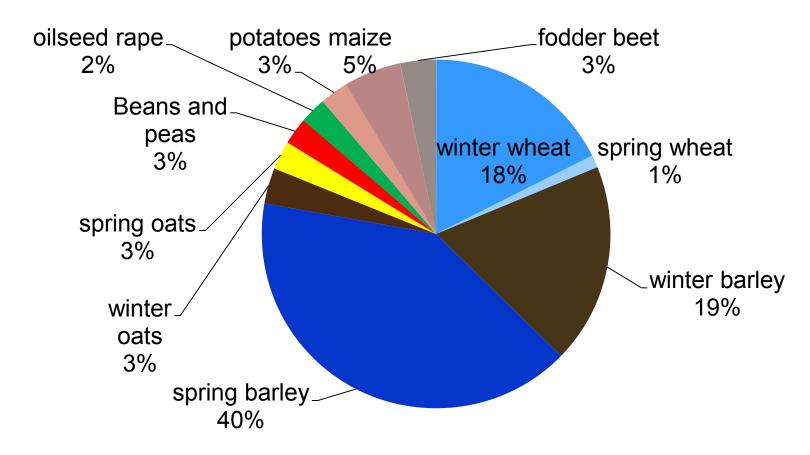
The general impression is that it rains quite a lot of the time in Ireland, but two out of three hourly observations will not report an

measurable rainfall.





Cropping 2018 total area 307,000 ha







Disease control essential in Irish Crop Production

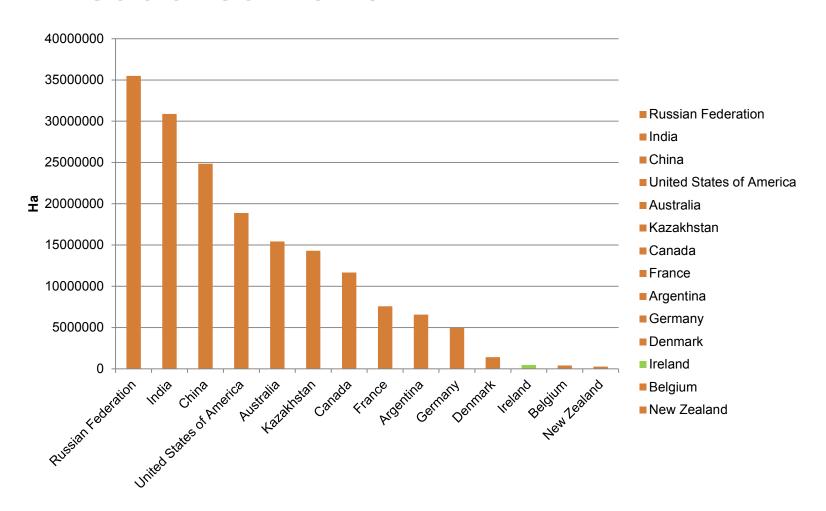




- ■High yields but...
- Extremely high disease pressure
 - Up to 50% yield reductions



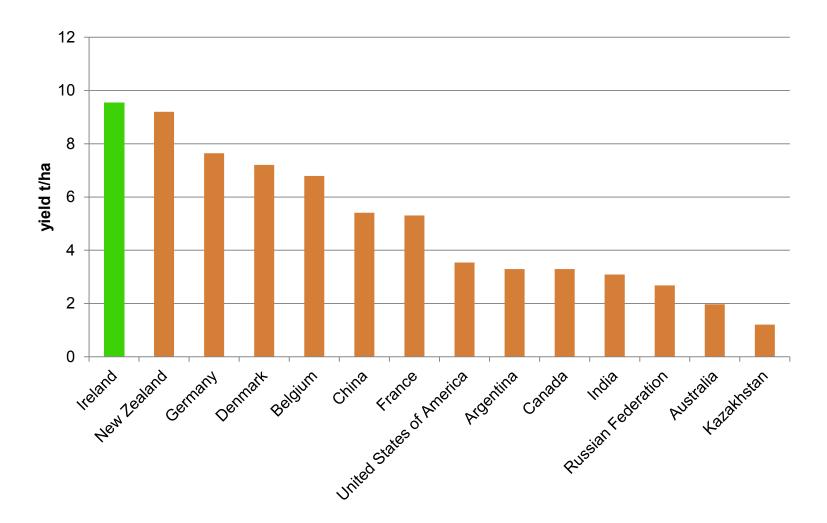
Wheat area 2016







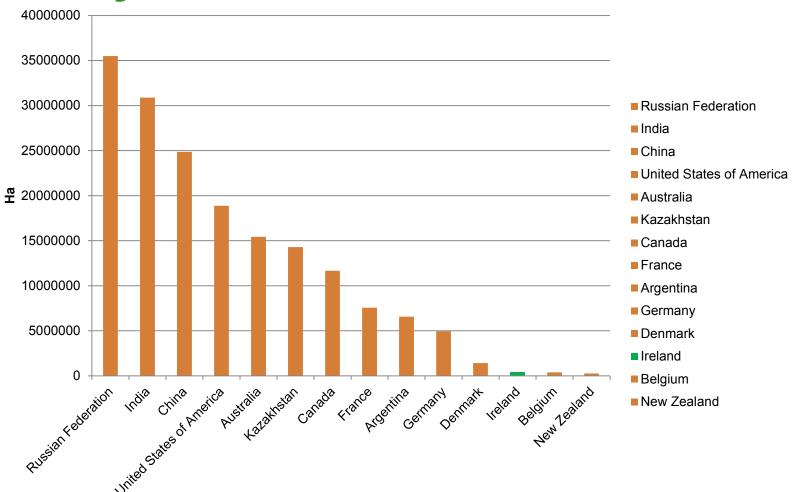
Wheat Yield 2016







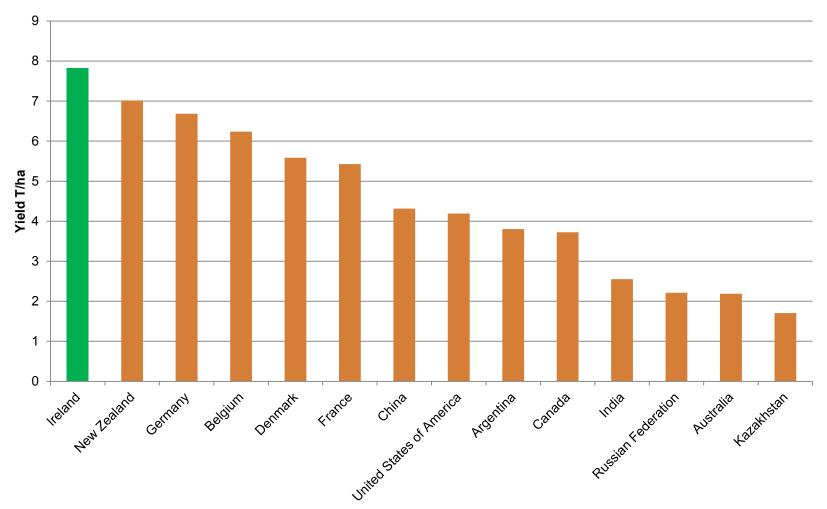
Barley area 2016







Barley yield 2016







Arable production in Ireland

- High yield
- High costs
 - » Structure
 - » Disease pressure
- Continued reliance on CPP –sustainable?
- Need improved genetic material
- BUT No native cereal breeding

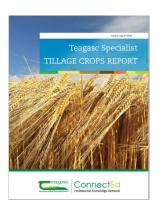


Programme Key Activities

- In-service training technical and financial
- Industry Training
 - Key industry publications: Crop Report
- Industry Joint Programmes
 - Malting Barley
- BETTER Farm projects
- National events and competitions
- Membership of internal and external working groups
- Development of decision support tools –manual and computer/online
- Research KT activities of projects
 - Horizon 2020, Stimulus and Core funded projects
- Social Media, YouTube, videos, etc
- Publications







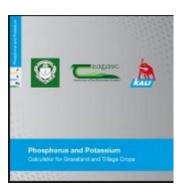






Adding Value

Agronomy and IPM

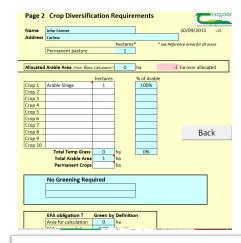








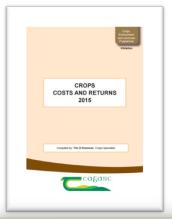
Scheme Support



Solving: Greening questions

How I approach EFAs Establish if farmer needs EFA (>15Ha) If so. how much?

Financial & Cost Control



	2013				Machines with payme outstanding		
			Mach. Inflatio	n			
	Current situation	2013	2.5%	Ste	ep 4		
	Total farmed area	500	Acres	Additional Costs			
	Total Tillage area	500	Acres				
	Soil Type	Medium		Practice Plough			
	Machine Name	Original Cost	Year of Purchase	Original Cost @Todays Price	Tot years fari		
	Machines with Paymer	nts Outstar	nding				
	New Holland TX66	80,000	2006	95,095	10		
	Grain Dryer	50,000	2004	62,443	25		
	Baler	20,000	2009	22,076	10		
	John Deere 6830	73,000	2011	76,696	5		
	Bredal	25,000	2010	26,922	5		
	NH TM155	38.000	2007	44.068	10		
	Ford 7740	20,000	2004	24.977	20		
	Volvo L70	16,000	2011	16,810	20		
	Volvo L50	15,000	1994	23,980	30		
	Plough	12,000	2007	13,916	20		
	Drill	4,500	2000	6,203	15		
	Harrow	11,500	2008	13,011	5		
۱	Sprayer	30,000	2012	30,750	10		
	Trailers	20,000	2000	27,570	25		
	Roller	4,000	2008	4,526	15		
	Straw Turner	2,000	2003	2,560	15		
	Baler 2	13.000	2013	13.000	15		



Example of KT approach SUD and Integrated Pest Management

- Teagasc SUD Working Group
- In-service training for Teagasc staff (webinar, etc.)
- CPE scheme for 360 Teagasc staff developed
- Specific large events
- Major focus at local event (1500 attendees)
- Newsletter: focus and specific insert
- Co-ordinated an past education data base (14,000 people)
- Crop Report large section
- IASIS Continuous Professional Development
- Teagasc/UCD Diploma in IPM-Course development/delivery
- Member of EPA Drinking Water working group
- Activities in MCPA and other major risks to water











Example of KT/industry initiative

Aims

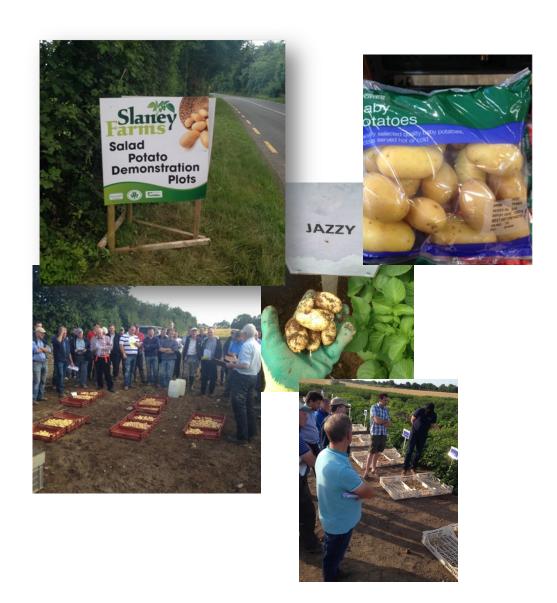
- Import substation
- Increase area by30% in Ireland

Industry

- Joint approach between IFA, Bord Bia and Teagasc
- Monitor Farm/crops
- Oak Park research

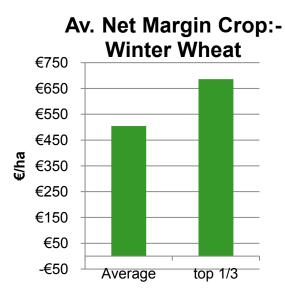
Results

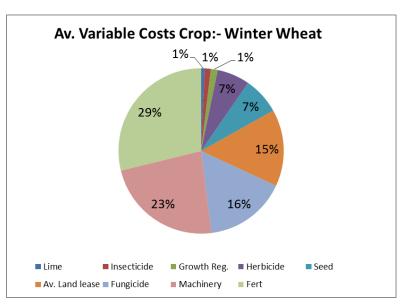
- Increased area by 50%
- Increased growers by 25%
- Retail demand increased for Irish product





Winter Wheat Returns 2017



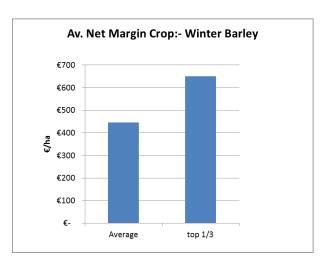


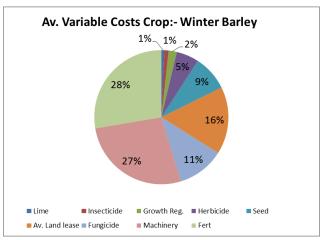
Crop:- Winter Wheat					
	A	Average		1/3	Top v Average
Physical					
Total No. hectares		5324			
No. Of Farms	Farms 154		51		
Tillage Adj. Ha		35		28	- 6
∕ield t/Ha		10.4		1.2	+ 0.72
Financial					
Crop Sales €/tonne	€	163	€	164	+ 1
Gross Output /ha	€	1,891	€2	2,084	+ 193
of which is straw/ha	€	187	€	250	+ 63
Material Costs/ha	€	678	€	677	- 0
Total Machinery Costs/ha	€	253	€	238	- 16
of which are contractor/ha	€	137	€	35	- 103
Other Variable Costs/ha	€	56	€	51	- 5
Gross Margin / Ha		904	€ 1	L ,117	+ 214
Total F. Costs / Ha	€	399	€	431	+ 32
Net Margin/ha	€	504	€	686	+ 182
Net Margin (inc DP) /ha	€	506	€	688	+ 182
Key Figures					
Total Costs €/ton	€	133	€	125	- 8
Av. Lan Lease Costs/ha	€	164	€	171	+ 7



Winter Barley Returns 2017

Crop:- Winter Barley							
	Д	Average		1/3	Top v Average		
Physical			·				
Total No. hectares		6145					
No. Of Farms		225		75			
Tillage Adj. Ha		27		33	+ 5		
Yield t/Ha		9.3		.5	+ 0.23		
Financial							
Crop Sales €/tonne	€	156	€	162	+ 6		
Gross Output /ha	€	1,737	€1	,878,	+ 142		
of which is straw/ha	€	288	€	338	+ 51		
Material Costs/ha	€	599	€	580	- 19		
Total Machinery Costs/ha	€	284	€	242	- 42		
of which are contractor/ha	€	143	€	50	- 93		
Other Variable Costs/ha	€	24	€	14	- 10		
Gross Margin / Ha	€	829	€ 1	,041	+ 212		
Total F. Costs / Ha	€	384	€	391	+ 7		
Net Margin/ha	€	445	€	650	+ 205		
Net Margin (inc DP) /ha		462	€	675	+ 213		
Key Figures							
Total Costs €/ton	€	139	€	129	- 10		
Av. Lan Lease Costs/ha	€	171	€	166	- 5		

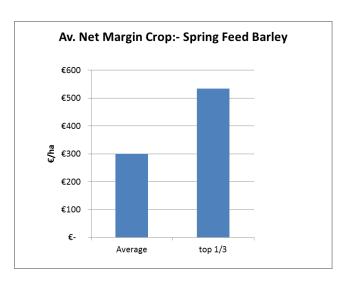


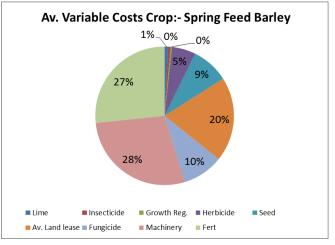




Spring Feed Barley Returns 2017

Crop:- Spring Feed Barley							
	A	Average		1/3	Top v Average		
Physical							
Total No. hectares		5053					
No. Of Farms		180		60			
Tillage Adj. Ha		28		34	+ 6		
Yield t/Ha		7.8		3.3	+ 0.50		
Financial							
Crop Sales €/tonne	€	153	€	158	+ 5		
Gross Output /ha	€	1,406	€1	,580	+ 174		
of which is straw/ha	€	215	€	270	+ 55		
Material Costs/ha	€	477	€	462	- 16		
Total Machinery Costs/ha	€	256	€	227	- 29		
of which are contractor/ha	€	127	€	58	- 69		
Other Variable Costs/ha	€	15	€	4	- 11		
Gross Margin / Ha	€	657	€	887	+ 229		
Total F. Costs / Ha	€	357	€	353	- 4		
Net Margin/ha	€	300	€	534	+ 234		
Net Margin (inc DP) /ha	€	304	€	543	+ 239		
Key Figures							
Total Costs €/ton	€	142	€	126	- 16		
Av. Lan Lease Costs/ha	€	180	€	185	+ 5		



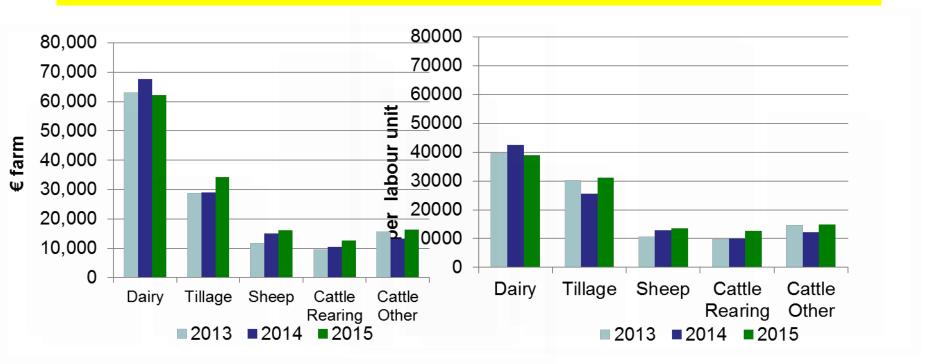




Average income by system

- per farm and per labour unit

Sector Income per labour unit: Tillage still below dairy, but differences are much reduced



Source: Teagasc, National Farm Survey



Thank You!

Questions?

