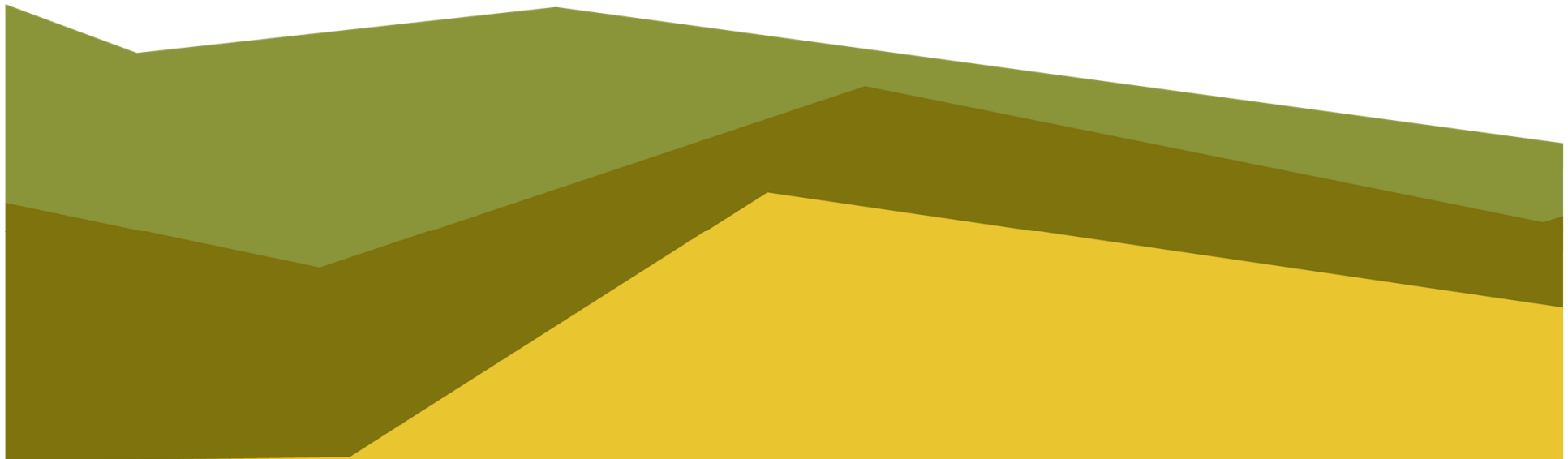

Risk Management for farmers

*Michael Archer
AHDB MI Research & Industry Manager*

Ulster Arable Society, 17/02/2012



Today's workshop will cover



What do we mean by Risk Management?

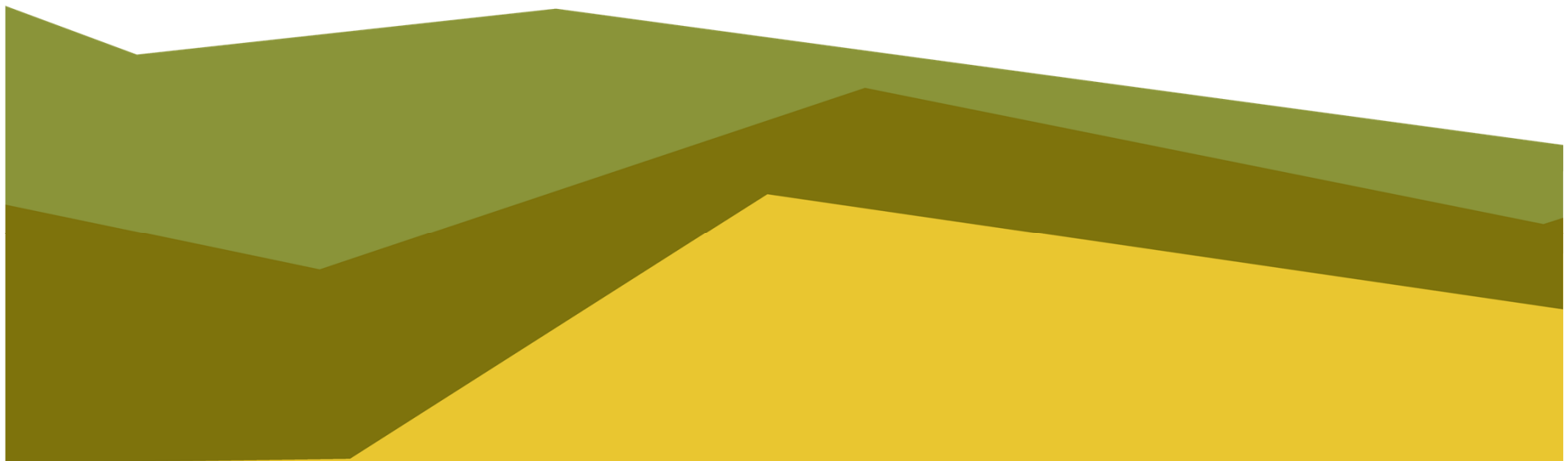
Pricing and marketing within the arable business
What are the objectives?

The impact of price volatility
How sensitive is profitability to price movement?

Developing a Price Risk Management strategy
What to consider and when to start?

Independent view of the tools available
What tools are suitable?

What do we mean by Risk Management?



Risk Management - theory



Risk: “A situation involving exposure to danger.”

Management: “The process of dealing with or controlling things or people.”

So

Risk Management: “The process of dealing with or controlling a situation involving exposure to danger.”

What are the dangers?

- Input price volatility
- Output price volatility
- Fixed cost requirements (depreciation etc)
- Uncertain demand/supply of products

There's a very long list . . .

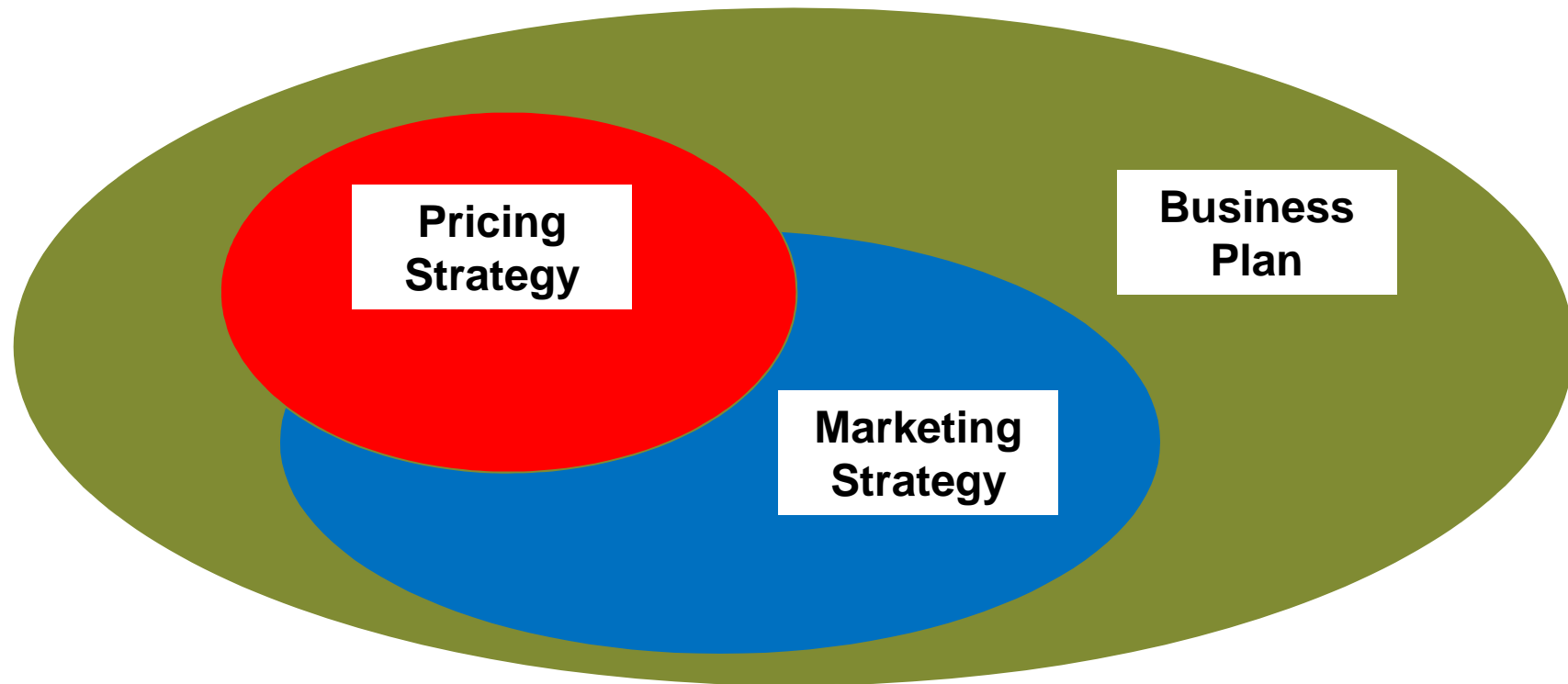
How much control do you want?



Gamble 1A		Gamble 1B		Gamble 2A		Gamble 2B	
Winnings	Chance	Winnings	Chance	Winnings	Chance	Winnings	Chance
\$3million	50%	\$1million	100%	\$3 million	5%	\$1 million	10%
0	50%			0	95%	0	90%

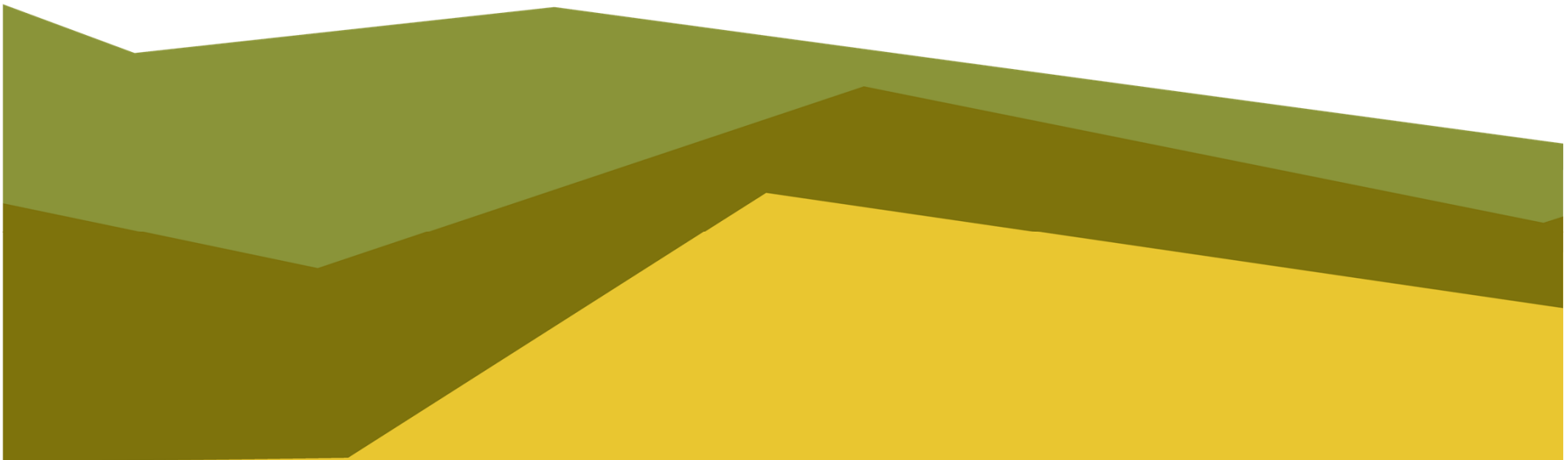
Note that \$3 million is half as likely as \$1 million in both examples – the choice between A & B is the same

Pricing and marketing



The impact of price volatility

How sensitive is profitability to price movement?



Appreciating risk



HGCA Feed Wheat Sensitivity Calculator

Step 1: Enter your planted area and expected average yield

Area ha	Av. Yield t/ha
200	9.00

Total crop tonnes
1,800

Step 2: Enter your range of average yields from the last 5 years t/ha

low	high
8.00	10.00

Step 3: Enter your expected variable costs £/ha

400

Step 4: Enter your expected fixed costs £/ha

600

Step 5: Enter the latest Nov-11 LIFFE futures price £/t

135

Step 6: Enter your ex-farm basis to futures (default = -£5/t)

--

Step 7: Enter amount of the 2011 crop already sold and at what price

tonnes	£/t (ex-farm)

2010 Feed Wheat Margin (£ per Ha)								% Variation in Gross Margin caused by price, accounting for any sales made	
Yield: tonnes per hectare									
	8.00	8.33	8.67	9.00	9.33	9.67	10.00		
Open market price: £ per tonne (Ex-farm)	90	-280	-250	-220	-190	-160	-130	-100	-212%
	100	-200	-167	-133	-100	-67	-33	0	-159%
	110	-120	-83	-47	-10	27	63	100	-106%
	120	-40	0	40	80	120	160	200	-53%
	130	40	83	127	170	213	257	300	0%
	140	120	167	213	260	307	353	400	53%
	150	200	250	300	350	400	450	500	106%
	160	280	333	387	440	493	547	600	159%
	170	360	417	473	530	587	643	700	212%
% variation in Gross Margin caused by yield		-76%	-51%	-25%	0%	25%	51%	76%	

Markets

HGCA provides economic analysis to aid marketing decisions. Up-to-the-minute prices, supply and demand, trade and policy information are online. Find out about market outlook to risk management events. Free services for levy payers include the weekly market report, Knowledge Centre, Market Data Services, and e-Newsletters.

Grain Market Workshops

Managing Risk in Volatile Markets – What’s your plan?

In these volatile times farmers are asking what market drivers should I watch out for and what pricing tools could work for my business? How can I build a plan that suits my business? To help answer these questions and provide an update on what is happening in the markets HGCA is running a programme of **free half-day Grain Market Workshops across the country.*

[Click here to find your nearest workshop](#)

*Free for levy payers only, non-levy £41.13 (inc vat)

Market news in brief

- Midweek market update**
 21 Oct 2010
 Grain markets and prices over the first half of this week
[more »](#)
- Latest UK Trade Data**
 20 Oct 2010
 Jul-Aug exports 200kt ahead of last season
[more »](#)
- Strategie Grains EU Supply and Demand**
 15 Oct 2010
 Wheat and barley output up, but feed grain situation tight
[more »](#)
- HGCA Early Balance Sheet for wheat**

Market Analysis

- Indicative Option Premiums for UK LIFFE Wheat**
 21 Oct 2010
 Option premiums for May 2011, November 2011 and May 2012
[more »](#)
- Sensitivity analysis tool**
 20 Oct 2010
 Price and yield are key variables when it comes to arable farm profitability. This tool enables farmers to quantify this variation, as demonstrated at this season's Grain Market Workshops.
[more »](#)
- In the latest issue of Prospects**
 14 Oct 2010
 A summary of the HGCA Market Outlook conference and analysis of the UK

Full Section Menu

[View Markets Submenu](#) ▼

Futures Prices

(as at 25 Oct 2010, 10:23)

LIFFE Wheat £ / tonne

Nov 10	161.75 (unch)
Jan 11	164.40 (unch)
Mar 11	165.75 (unch)
May 11	170.75 (+2.00)
Jul 11	168.75 (unch)
Nov 11	138.25 (unch)
Nov 12	131.65 (unch)

MATIF Wheat euro / tonne

Nov 10	210.75 (+1.25)
Jan 11	209.00 (+1.25)
Mar 11	208.50 (+1.50)
May 11	208.25 (+1.75)
Aug 11	180.00 (unch)

MATIF Rapeseed euro / tonne

Nov 10	388.50 (+1.75)
Feb 11	398.00 (+3.00)
May 11	397.25 (+3.00)
Aug 11	382.00 (+2.50)
Nov 11	383.00 (+2.50)

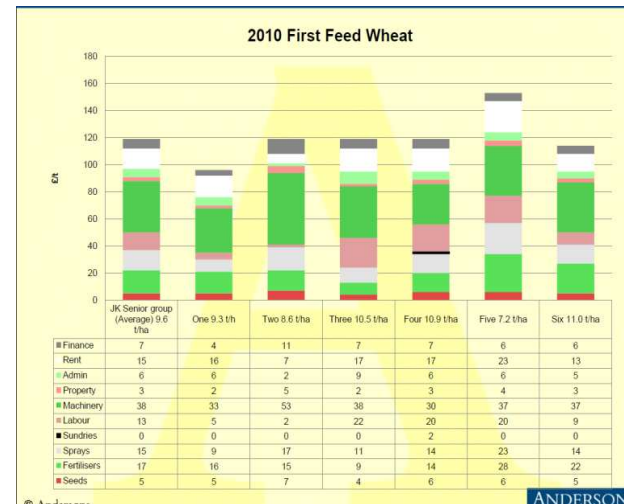
MATIF Malting Barley euro / tonne

Nov 10	222.50 (unch)
Jan 11	223.25 (unch)
Mar 11	227.75 (unch)

HGCA's Cropbench Benchmark



Amie Burke
Business Improvement Executive
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Benchmarking at CAFRE



Countryside

Agri-Rural
Partnership

Benchmarking at CAFRE

Good business practice

The Greenmount Arable Benchmarking Programme is a free and **confidential** business comparison service available to farmers in Northern Ireland.

Contact: Charlie Kilpatrick
Senior Business Technologist
CAFRE Greenmount Campus
Tel: 02894426854

A poster titled 'Arable Benchmarking' from CAFRE. The poster features four photographs: a tractor with a red harrow in a field, a close-up of green corn plants, a field of golden wheat, and a combine harvester with a tractor. The CAFRE logo is at the top right, and the DARD logo is at the bottom left. The text 'INVESTOR IN PEOPLE' is at the bottom right.

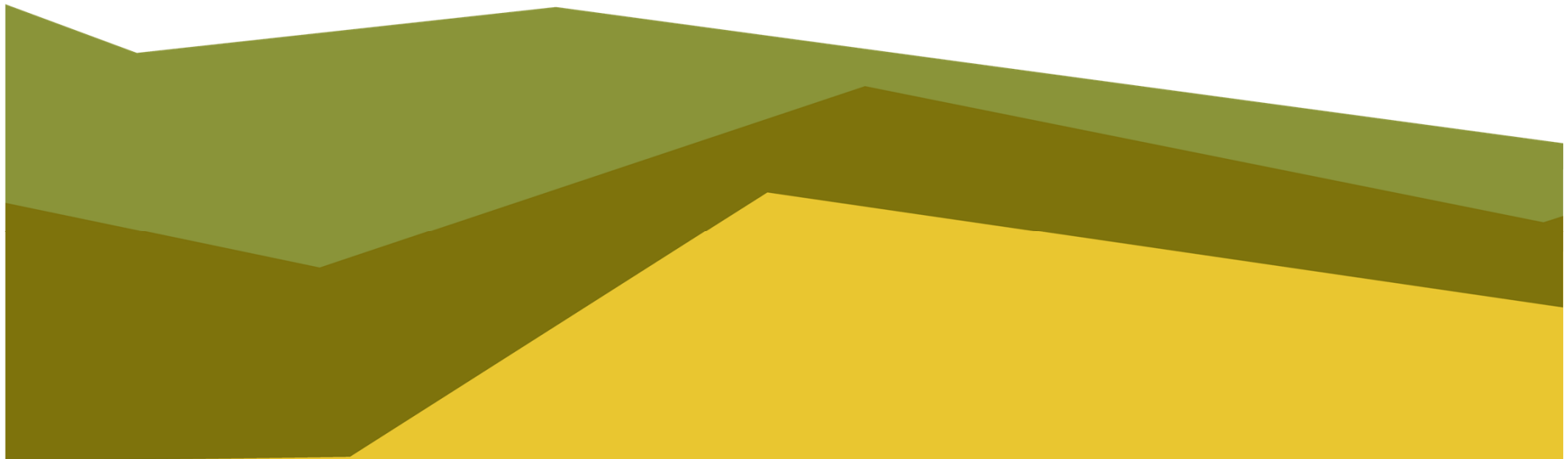
cafre
College of Agriculture,
Food & Rural Enterprise

Arable Benchmarking

DARD
Department of Agriculture
and Rural Development
www.dardni.gov.uk

INVESTOR IN PEOPLE

Pricing and marketing within the arable business



Risk Management thought process



Every business is different . . .

So a one-size-fits-all approach is not appropriate!

What are your Risk Management objectives?



Maximise profits

Minimise chance of loss

Flexibility

Minimise management time

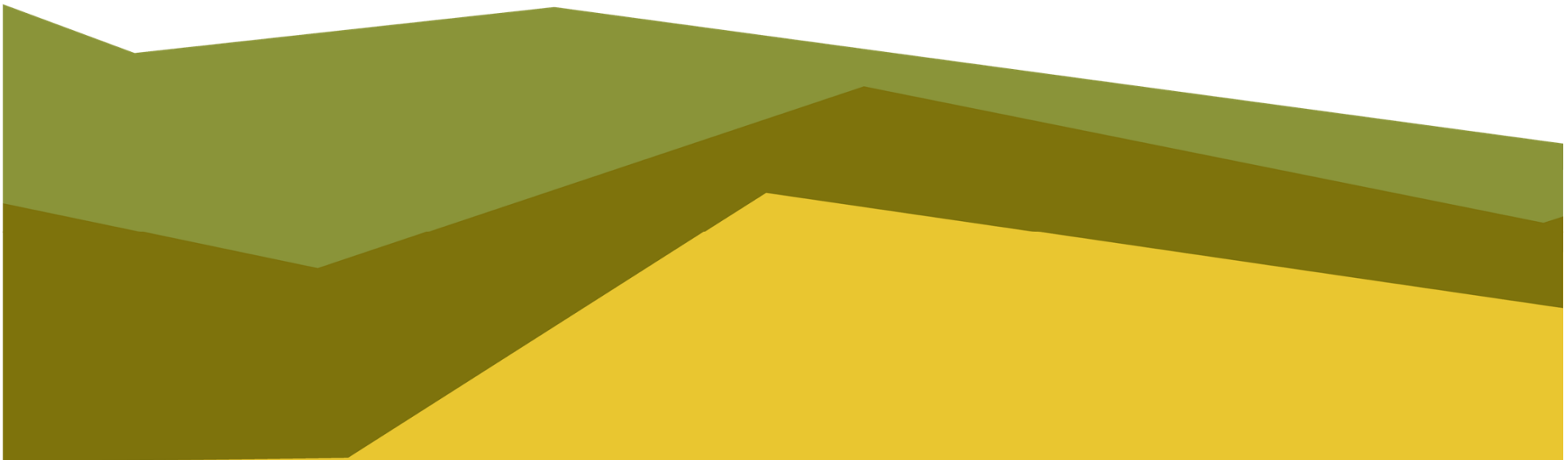
Practical – storage needs etc

Manage cash flow

Combination of some/all of the above?

Developing a Price Risk Management strategy

What to consider and when to start?



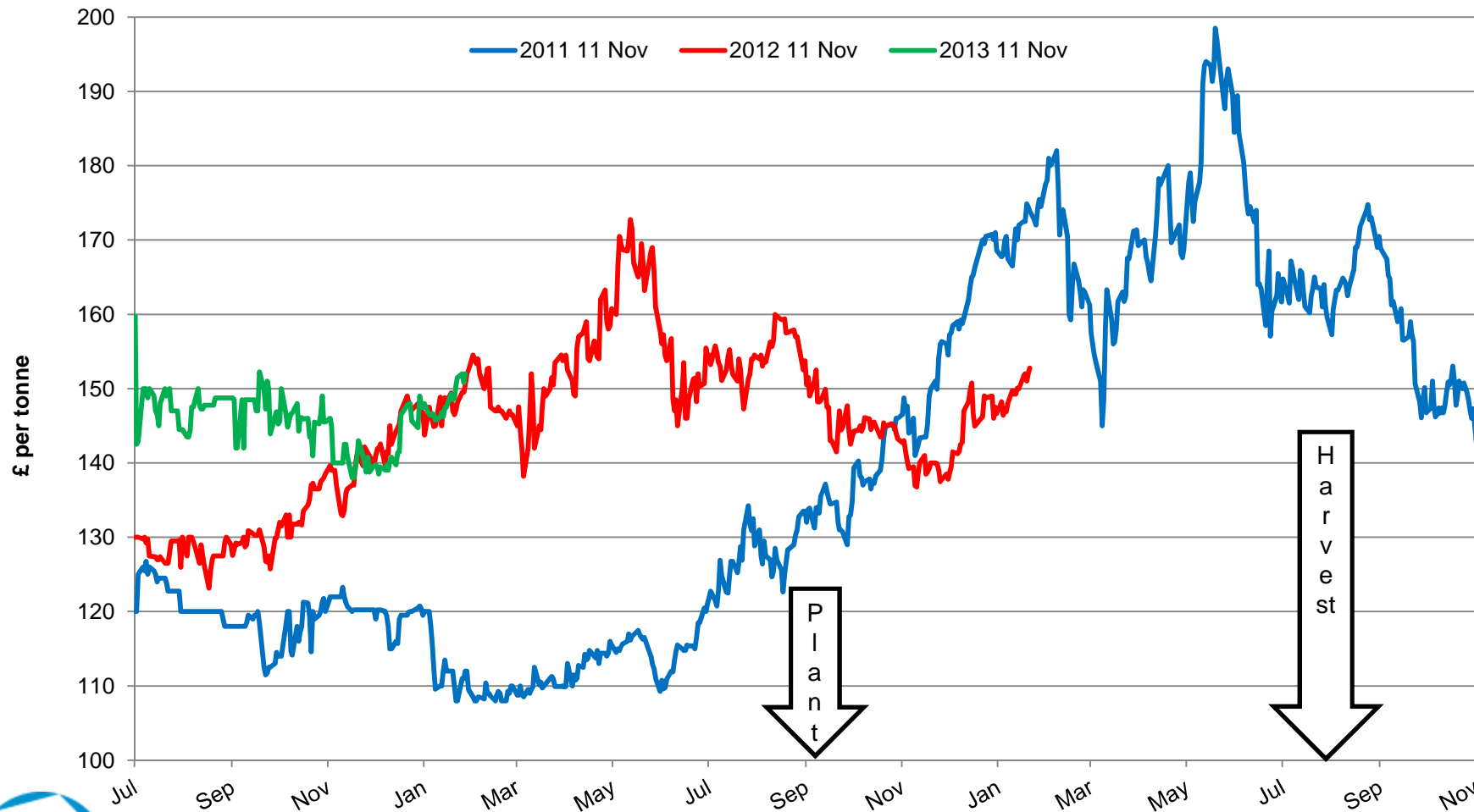
Some questions when considering your strategy



-
1. How long do you want your strategy to cover?
 2. Do you want it to be flexible or fixed?
 3. How are going to measure how effective your strategy is?
 4. Do you need multiple ones? (inputs/outputs etc)

There are many different considerations . . .

Up to 3 years to price a season's crop - *multi season price and market monitoring is key*



The easiest way to monitor prices: Futures

- a few key points to know



- The forward market in a formal setting: Standard quantity and quality
- UK market can be delivered, but mainly used as a 'hedge'
 - Merchant or mill buys from farmer – sells futures
 - Merchant or mill sells to consumer – buys futures

www.hgca.com/markets

www.euronext.com



NYSE Liffe									
News & notices Prices Product information									
Market summary									
FEED WHEAT FUTURES Add to My Euronext									
Codes and classification									
Code	T	Market	NYSE Liffe London	Vol.	150	15/09/10			
		Currency	£	O.I.	14,524	13/09/10			
Prices - 15/09/10									
Delivery	Time (CET)	Last	Vol	Day volume	Bid	Ask	+/-	%+/-	Settl.
NOV 10	12:23	163.75	1	55	163.25	164.00	1.25	0.77	162.50
JAN 11	-	-	-	-	163.00	165.00	-	-	164.00
MAR 11	-	-	-	-	165.50	167.50	-	-	165.50
MAY 11	12:34	167.50	10	26	166.00	167.50	2.00	1.21	165.50
JUL 11	-	-	-	-	-	-	-	-	166.50
NOV 11	12:05	134.50	3	69	134.00	134.50	0.50	0.37	134.00
JAN 12	-	-	-	-	-	-	-	-	136.60
MAR 12	-	-	-	-	-	-	-	-	137.45
MAY 12	-	-	-	-	120.00	142.50	-	-	142.50
NOV 12	-	-	-	-	-	130.00	-	-	129.25

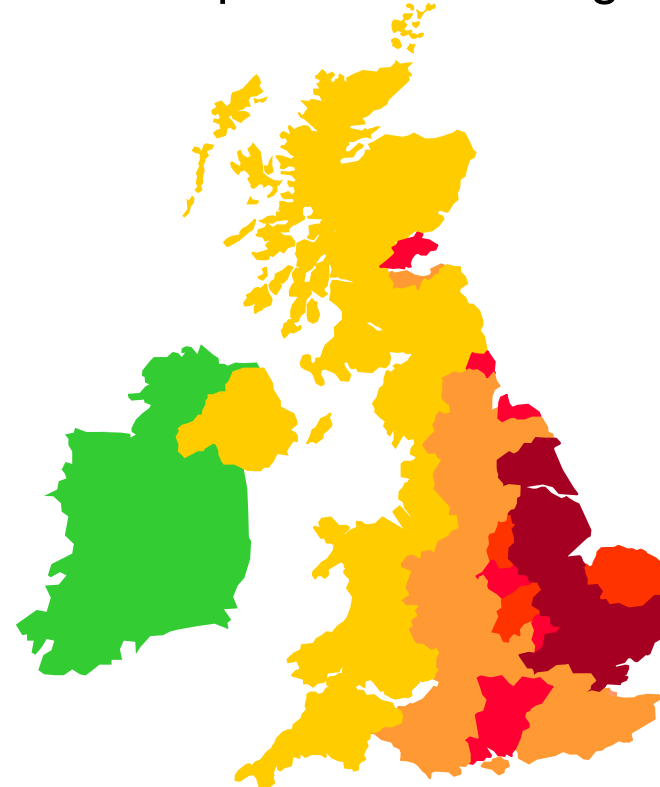
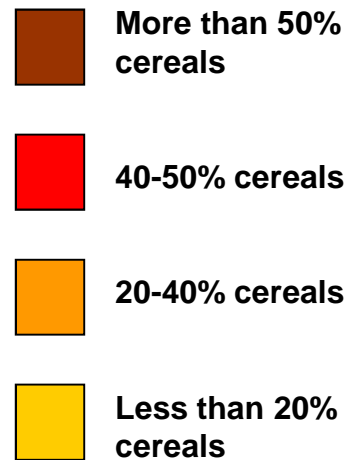
Note: Settlement price is for the trading day 14/09/2010

Identify your basis

- the key to linking futures and ex-farm prices



- GB (net exporter) ex-farm quote(s) less futures (-£3 to -£8)
- NI (net importer) tends to trade £15-£20 above futures – freight and position of mill
- Changes by region and as the marketing season progresses
- Need for grain to physically move from surplus to deficit regions



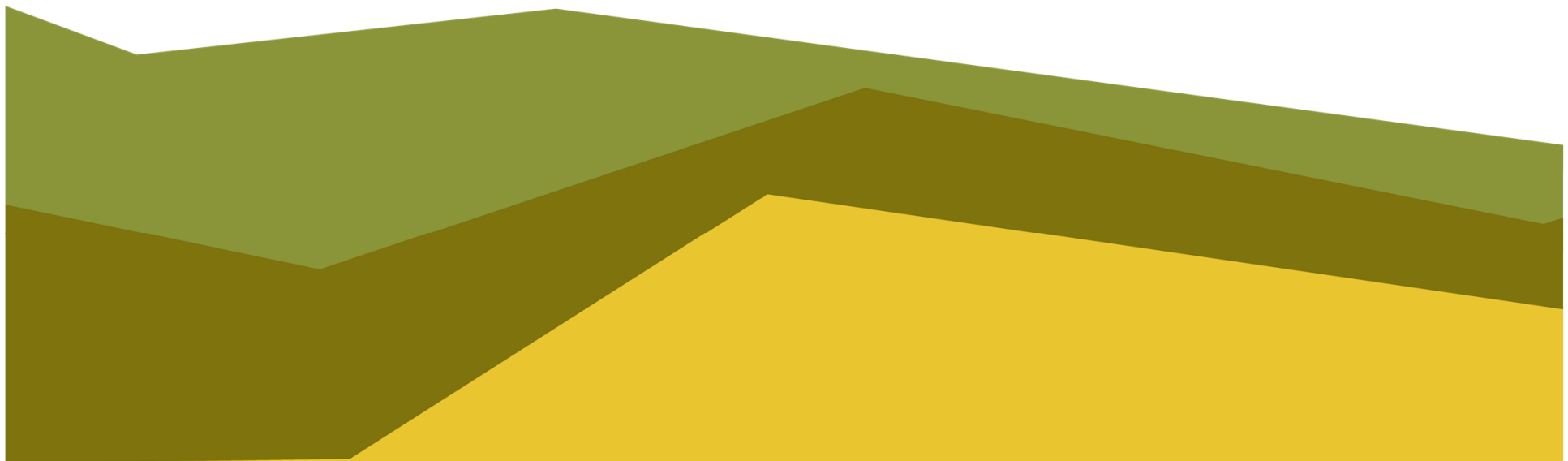
The NI market and future volatility



- Southern republic and NI net deficit. Middle of island of Ireland is net surplus.
- NI currently prices mainly off GB, with other sources where GB price relatively high – e.g. ROI, EU mainland
- Works since GB is *normally* a net exporter and NI is *normally* a net importer.
- GB balance sheet changing – e.g. biofuels in NE England. GB to become more balanced/net importer?
- NI price to be determined more often by non-GB areas – only exports from GB to NI for smaller part of year? Exchange rate dependent.
- Could provide increased volatility in future – NI price follows cheapest of a larger suite of prices.

Independent view of the tools available

What tools are suitable?



Some tools available



Strategy	Description
Selling forward	Selling at a specified price for delivery in future months
Averaging	Selling a fixed amount of the crop e.g. every month over a period
Target pricing	Sell % crop at specified 'target' prices or 'triggers'
Pools	Give someone else the responsibility to sell your crop and take the 'pool' price

General strategies available

- *discussion*



Strategy	Pros	Cons
Selling forward	Limiting downside Price certainty	Limiting upside Default
Averaging	Achieve average price Time efficient	Selling below cost? Non-responsive to market
Target pricing	Removes psychology Reacts to protect profit	Will markets reach target Non-responsive to market
Pools	Someone else's responsibility Saves management time	Little price certainty No control

Recap: Planning a Price Risk Management Strategy



Consider your objectives



Devise your strategy



Decide upon your tools



Talk to your merchant



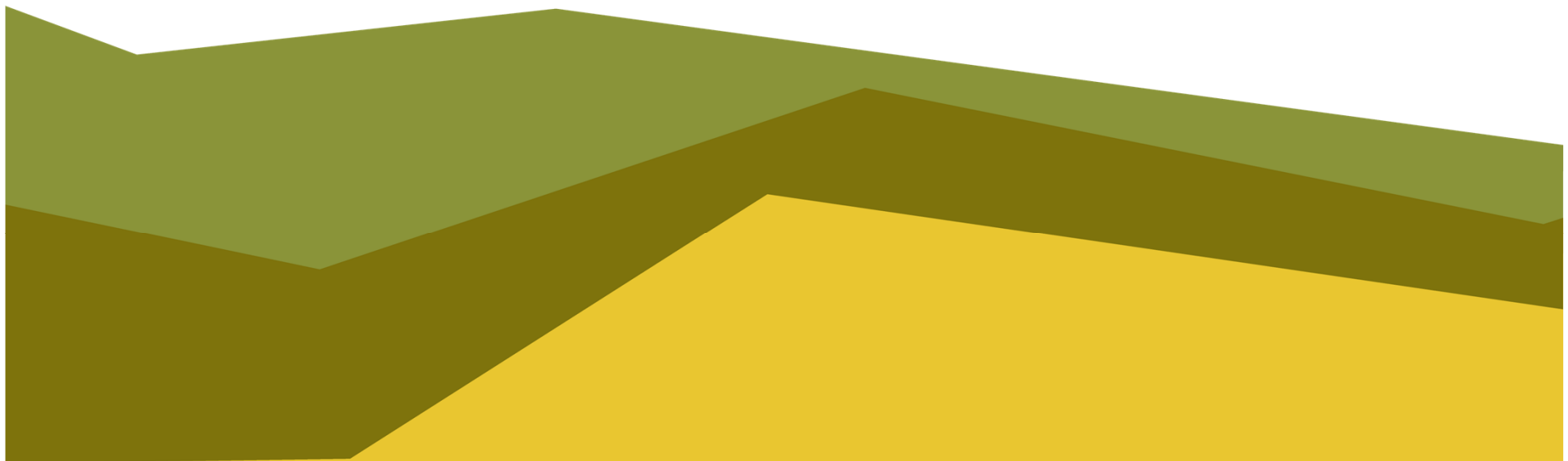
Thank you

michael.archer@ahdb.org.uk

02476 478763

A decorative graphic at the bottom of the slide consists of several overlapping, irregular shapes in shades of green and yellow, creating a layered, mountain-like effect.

Grain Pricing Strategy Exercise



Objective: *Devise and justify a grain pricing strategy for the 2012 crop*



-
- **The farm:**
 - 300Ha growing feed wheat and oilseed rape
 - Crop rotation: 1st wheat, 2nd wheat, oilseed rape
 - **Budgeted production costs for 2012:**
 - First feed wheat: £1,000/Ha
 - Second feed wheat: £1,100/Ha
 - Oilseed rape: £950/Ha

Area, yields and production



		Low yields	Average yields	High yields
First feed wheat	Area (Ha)	100	100	100
	Yield (t/ha)	8	9	10
	Production (t)	800	900	1,000
Second feed wheat	Area (Ha)	100	100	100
	Yield (t/ha)	7.2	8.1	9
	Production (t)	720	810	900
Total wheat production (t)		1,520	1,710	1,900
Oilseed rape	Area (Ha)	100	100	100
	Yield (t/ha)	3	3.5	4
	Production (t)	300	350	400

Market information



Price quotes	Feed wheat		Oilseed rape	
	Futures (£/t)	Ex-farm (£/t)	Futures (€/t)	Ex-farm (£/t)
Harvest-12	-	134.5	398.5	335
Oct/Dec-12	143.5	138.5	399	336
Jan/Mar-13	146	141	400.75	338
Apr/Jun-13	151	146	-	-

€1 = £0.8792

Devise a strategy



What is your pricing strategy?

Why?

Additional points to consider:

- Costs
- Sensitivity
 - Do you want downside protection? What happens if the market falls £40/t?
 - Do you want upside opportunity? What happens if the market rises £40/t?
- How often will you sell - e.g. all in one go, every month?
- What are the pros and cons of your strategy?