Business Management

Managing Increasing Costs

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	Top 20%	The difference	Bottom 20%
Yield /acre (tonnes)	3.3	**-0.90**	2.4
Machinery Costs/acre	***£155***	***+£59***	***£214***
Total cost /acre*	£392	**+£103**	£495
Total cost /tonne (less straw sales)	£87	**+£85**	£172

***No allowance for family labour cost**

CAFRE Benchmarked Farms	**2003**	**2007**	**2011**
Total cost per acre	£257	£299	£414

Nitrogen Fertiliser

	2002	2003	2005	2007	2009	2011
Cost/Tonne	£96	£124	£140	£150	£197	£286
Cost per acre *	**£24**	£31	£35	£38	£49	**£72**

*** assume 5 bags/acre (137 units)**

Red Diesel

	2002	2003	2005	2007	2009	2011
Cost/pence/litre	21.53	24.12	35.55	41.76	46.44	68.57
Cost per acre *	**£9**	£10	£14	£17	£19	**£28**

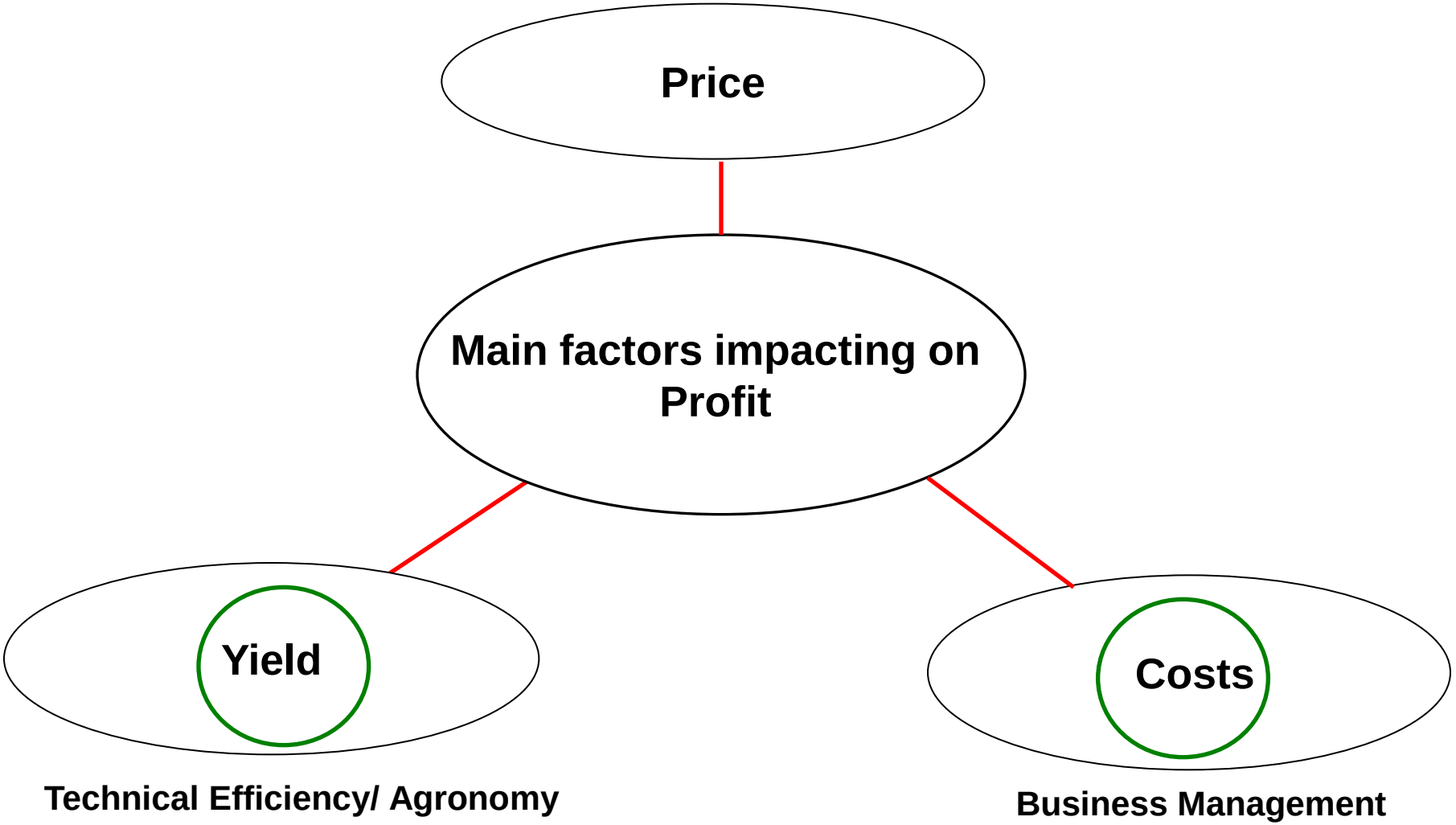
*** assume 40 litres/acre**

Total machinery costs CAFRE Benchmarked farms

	2002	2003	2005	2007	2009	2011
Cost per acre *	n/a	**£98**	£96	£123	£158	**£187**

***Includes: Contractor, Depreciation. R&M, Insurance and Fuel**

3 Components of Profit What can you Control?



Disease Control

Soil Fertility

Variety

Crop Rotation

Sowing date

Nitrogen Timing

Weed Control

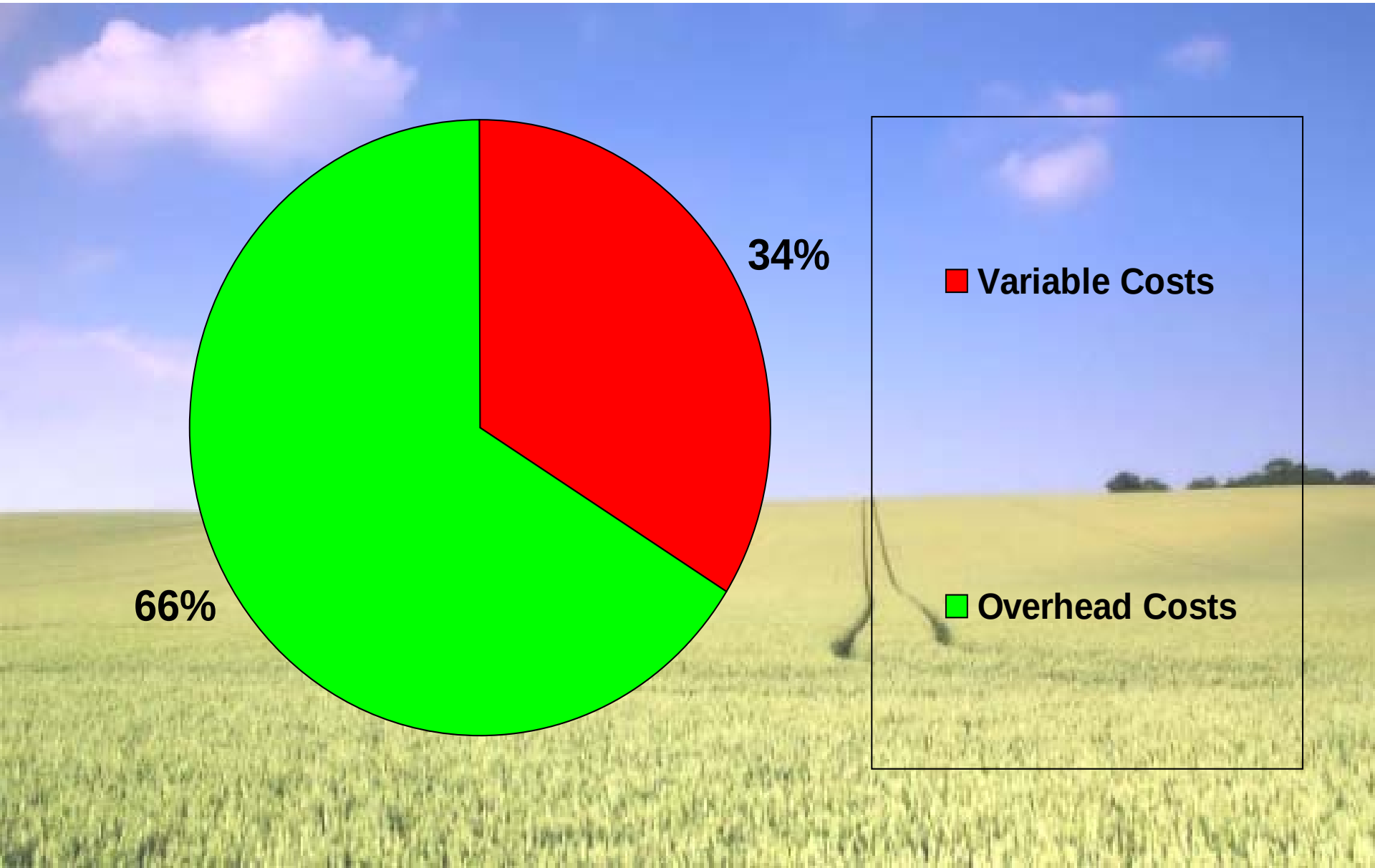
Cultivation Technique

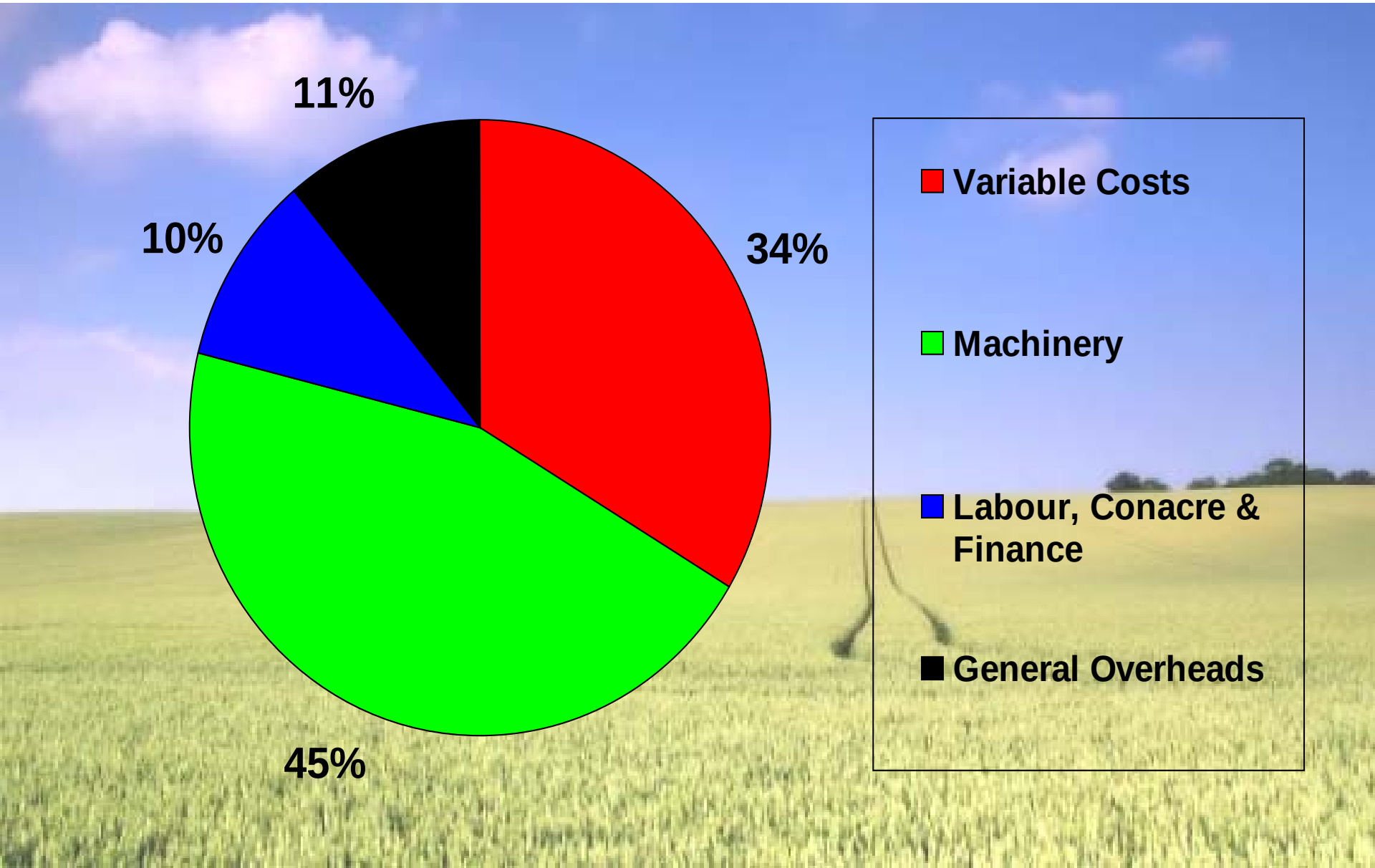
	Past and Present	Future
Trading	**ACCOUNTS** Management Accounts (Benchmarking) Tax Accounts	**BUDGETS** **Management Budgets** **(Profit and Loss a/c)** **Cash Flow Budgets**
Capital	**BALANCE SHEETS**	**INVESTMENT APPRAISAL**

- Recording past performance
- Comparing the results with set standards and other farms
- Identifying where improvements can be made
- Setting realistic physical and financial performance targets for <u>your</u> farm

- Gross Margin = Output – Variable costs
- Net profit = Output – Total Costs (Variable & Overhead)

Variable costs	**Overhead costs**	**Capital Costs**
Seeds	***Machinery running costs***	Land
Fertiliser	***Contractor costs***	Buildings
Sprays	***Depreciation***	***Machinery***
	Property repairs	
	Miscellaneous	
	Labour	
	Conacre	
	Finance / Interest	

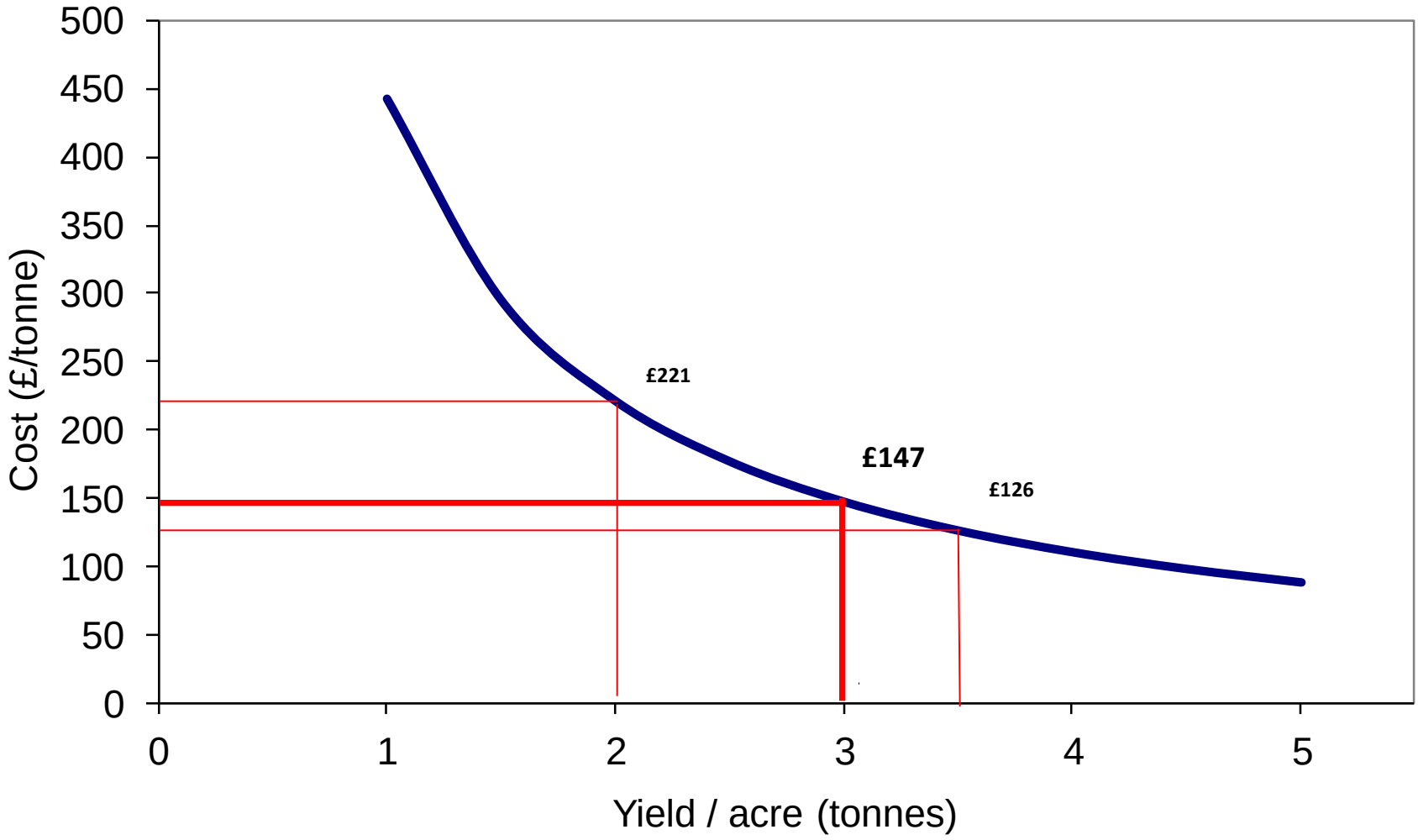

34%
66%
Variable Costs
Overhead Costs


11%
10%
34%
45%
Variable Costs
Machinery
Labour, Conacre & Finance
General Overheads

Example Winter Wheat 2011 Harvest

	Cost/acre
Variable costs	£177
Machinery Costs	£176
Other Overheads	£77
Own labour	£100
Total costs	**£530**
Straw Sales	£87
Total Cost less Straw sales	£443

Total cost less straw sales = £443/acre



Review of results all crops Benchmarked (60 farms)

(No allowance for family labour cost)

	Top 25%	**Average**	*Bottom 25%*
Yield /acre (tonnes)	*3.2*	2.7	*2.4*
Variable cost/acre	*£156*	£139	*£152*
Machinery costs / acre	***£161***	***£187***	***£206***
Other overheads/acre	*£71*	£88	*£114*
Total cost /acre	*£388*	£414	*£472*
Value of straw/acre	*£107*	£92	*£81*
Total cost/acre less straw sales	*£281*	£322	*£391*
Total cost /tonne	*£88*	£119	*£163*

Average results all crops Benchmarked (60 farms)

Combination of owned and contractor use

	Top 25%	**Average**	*Bottom 25%*
Contractor cost/acre	*£69*	*£89*	*£101*
Depreciation/acre	*£47*	*£48*	*£49*
Repairs and insurance/acre	£26	£24	£27
Fuel/acre	£19	£26	£28
Total machinery cost /acre	**£161**	**£187**	**£205**
Area of Cereals Grown (acres)	185	124	62

- Variation in profitability between the top and bottom 25% of farms - due to efficiency differences.
- Top 25% continue to increase their margins whereas the bottom 25% of producers margins continue to decline.
- Farmers in the top 25% generally obtain better yields from similar soils
- They make best use of technology and training and focus on timeliness
- They are prepared to adapt to change
- SFP, and CMS are not included

Striking the right balance between Ownership and Contractor

Contractor costs 2012	**£/acre**
Plough	£26
Power Harrow & Sow	£25
Fertiliser application (3 x £4)	£12
Spray (4 x £8)	£32
Combine Harvest	£38
Bale	£24
Grain Haulage	£10
Grain dry (2.7 t/acre @20%MC)	£47
Total Machinery costs (Using all Contractor)	**£214**
Average machinery cost 2011 CAFRE Benchmarking Cereal Crops	**£187**

	Capital Outlay	Cash Flow	Repairs & Maintenance
Ownership			
Cash Purchase	Full Cash cost	Operating Costs	Full cost
Credit Purchase Term Bank Loan Asset Finance	Down Payment or trade in	Operating Costs & Loan Repayment	Full cost
Contractor	N/A	Contract Cost	No cost
Contract Hire	N/A	Operating Costs & Hire Fee	Limited cost

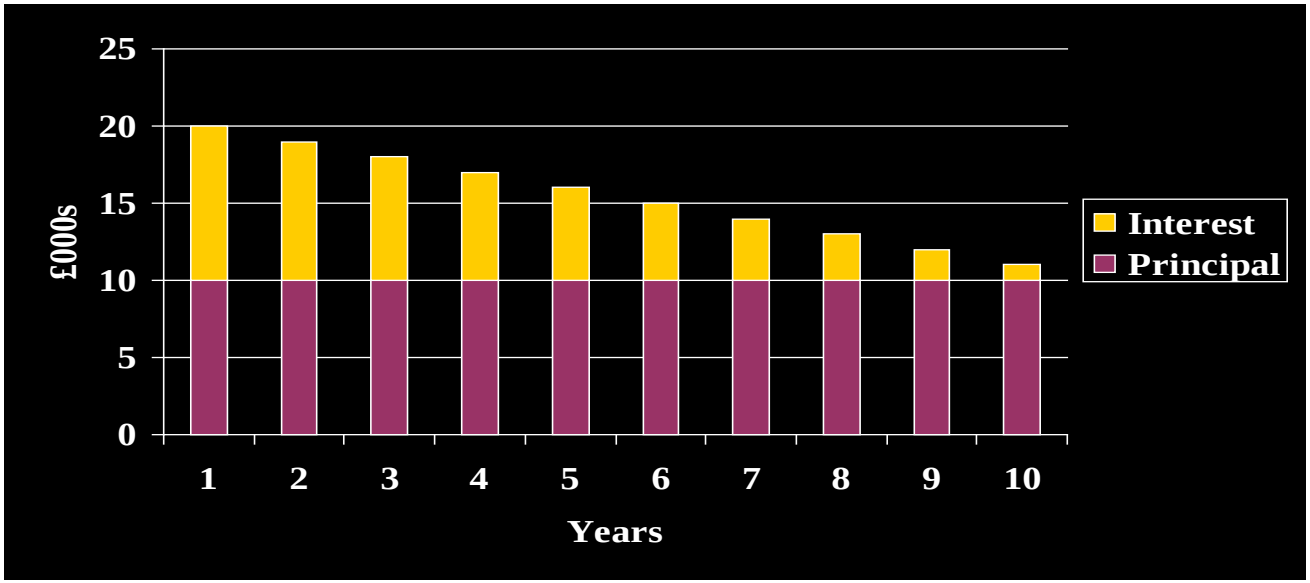
Compare Annual Percentage Rate (APR)

- APR allows you to evaluate the cost of the finance in terms of a percentage.
- APR means the interest rate only applies to the outstanding capital amount (some non APR loans may apply interest on all the capital over the loan term).
- All other things being equal, you simply want the loan with the lowest APR.

Straight repayment

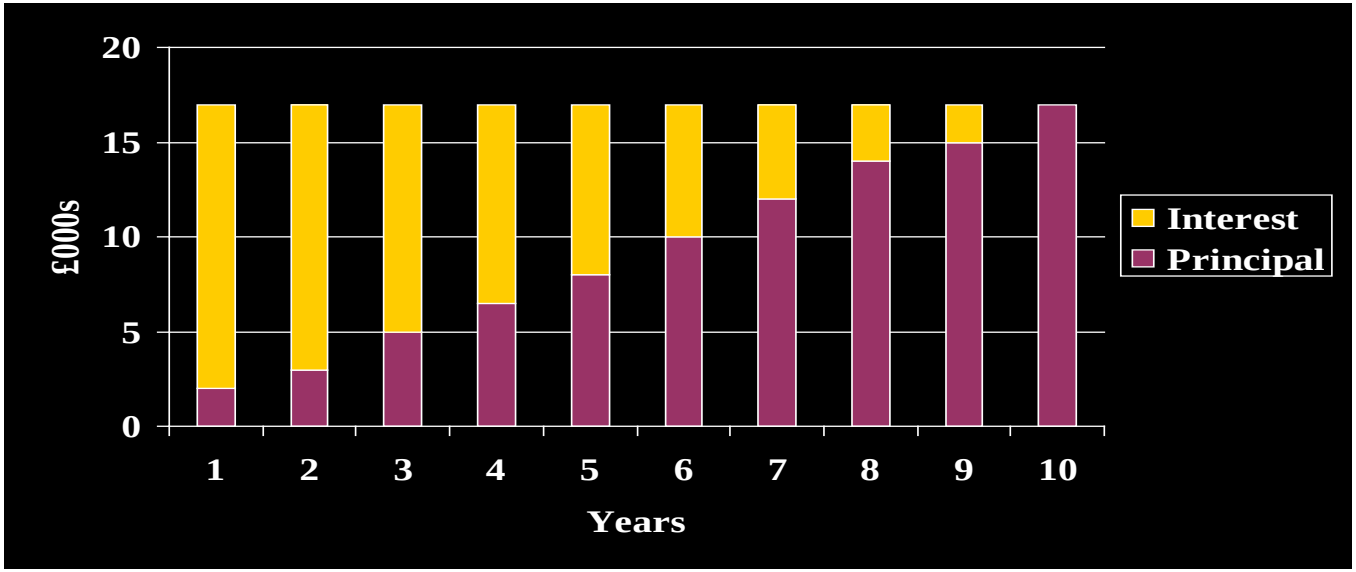
Loan repaid in equal instalments of capital but with reducing interest payments. Therefore larger payments at the start

Interest rate may be varied but not in this example
Example: £100,000 for 10 years at 10%



Amortised repayment

Loan repaid in equal instalments which combine principal and interest
Interest rate can be **varied or fixed**
example: £100,000 for 10 years at 10%



Total repayments for a £50,000 loan fixed at 6% interest over various time periods.

Repayment period (years)	Annual Repayment (£) inc Interest
3	17,448
4	13,272
5	11,550
6	10,150
7	8,950
8	8,050

The more years the loan is taken over the smaller the repayments.

Total repayments for a £50,000 loan fixed at 6% interest over various time periods.

Repayment period (years)	Total amount repayable (£)
3	52,334
4	53,080
5	57,750
6	60,900
7	62,650
8	64,400

The more years the loan is taken over the larger the total cost in interest.

Example real cost: Combine Harvester costing £90,000

Assuming :

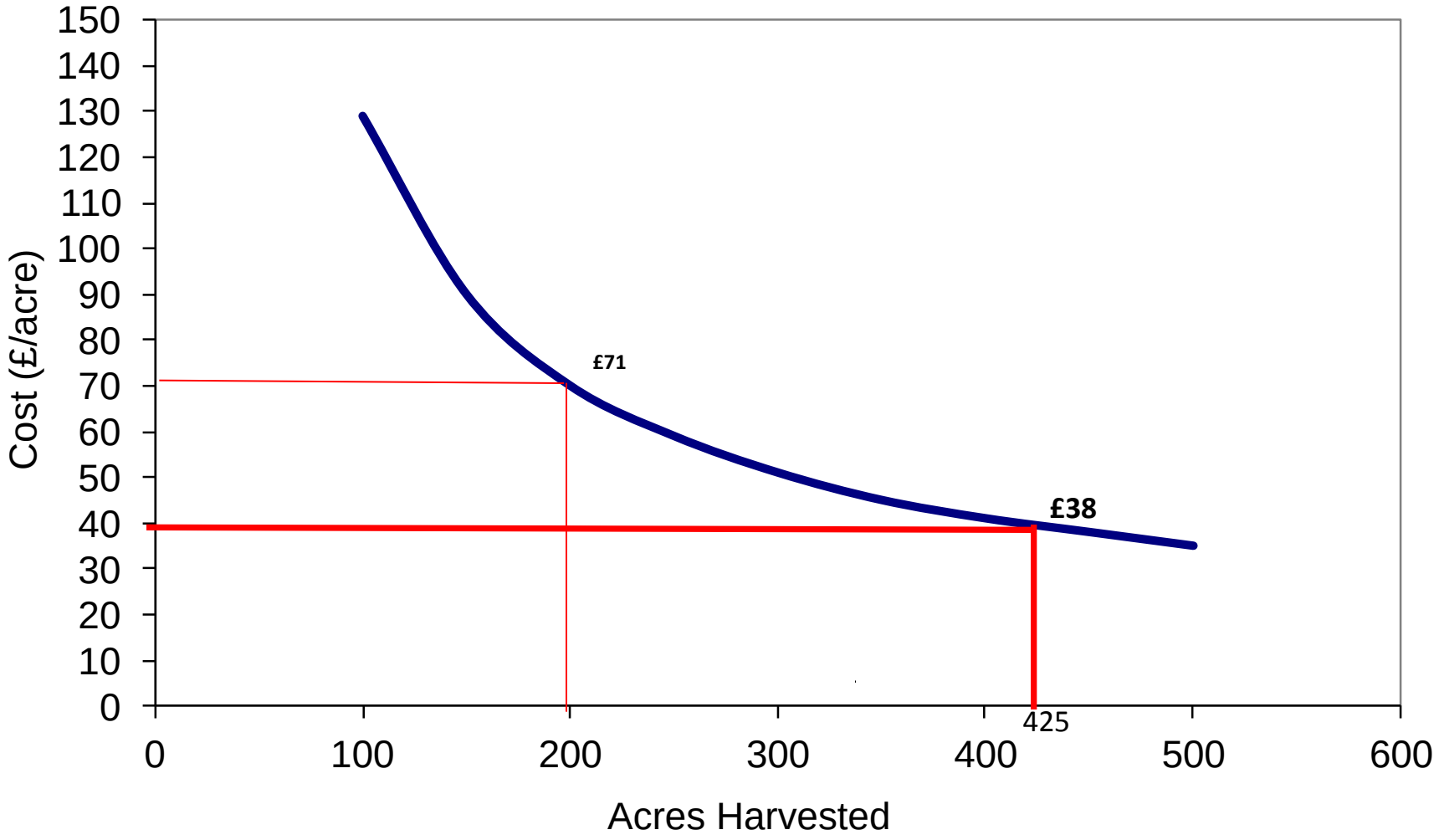
- Combine sold at 20% of original price at 10 years
- Annual repairs cost 3% of new price
- Insurance is 1% of current value
- Fuel cost 65ppl with a 5% allowance for oil
- Fuel consumption is 10 litres per acre
- Work rate 3.5 acres per hour including field change time
- Labour cost £10

Example: Real cost Combine Harvester costing £90,000

Option 1. 400 acres	
Depreciation	£7200
Interest	£1800
Insurance	£800
Repairs and maintenance	£2700
Fuel and oil	£2750
Labour	£1000
Total	£16,250
Cost per acre	£41

Option 2. 200 acres	
Depreciation	£7200
Interest	£1800
Insurance	£800
Repairs and maintenance	£2500
Fuel and oil	£1368
Labour	£500
Total	£14,168
Cost per acre	£71

Break even acreage equivalent to contractor cost



- Be aware of the cost of land fragmentation and distance travelled to Conacre
  - Fuel use
  - Labour cost
  - Wear and tear/damage during road transport

- Use machinery efficiently to reduce running costs
  - Match equipment to the right horse power
  - Tyre pressure
  - Regular service and maintenance

- Reduce real depreciation
  - Store machinery undercover
  - Wash, clean, service and lubricate after seasonal use
  - Keep regular service and maintenance records

- Work closely with your contractor to plan harvesting and sowing dates

- Consider co-operation with neighbouring farmers to justify cost of the larger machine

- Machinery costs account for a significant proportion of all production costs.
- You must know your costs.
- Determine the correct balance of owned and contracted machinery to suit your business.
- Cash flow is distinct from profit and it is essential that you plan well ahead to meet all payments.
- Compare sources of finance using Annual Percentage Rate and total interest paid.
- The decision to purchase new machinery must be based on sound cost benefit analysis.
- It is essential that you continually review the running costs of all farm machinery.

- Thin and patchy crops
  Key decisions, re-establishment v nurturing

- Interrupted crop rotation
  OSR planting in 2013?

- Reduced Cash Flow
  Liaise closely with your bank

- Tax bill relating to the 2011/12 year
  Liaise closely with your accountant

- Good prospects for grain prices despite volatility
- Input costs will remain high or further increase
- There is scope to improve overall agronomy on most crop farms in order to improve yield
- The top 50% of Northern Ireland cereal farmers have a profitable and sustainable future
- You must know your costs of production
- Benchmark your business to make key decisions