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Organic crop margins - do they add up?

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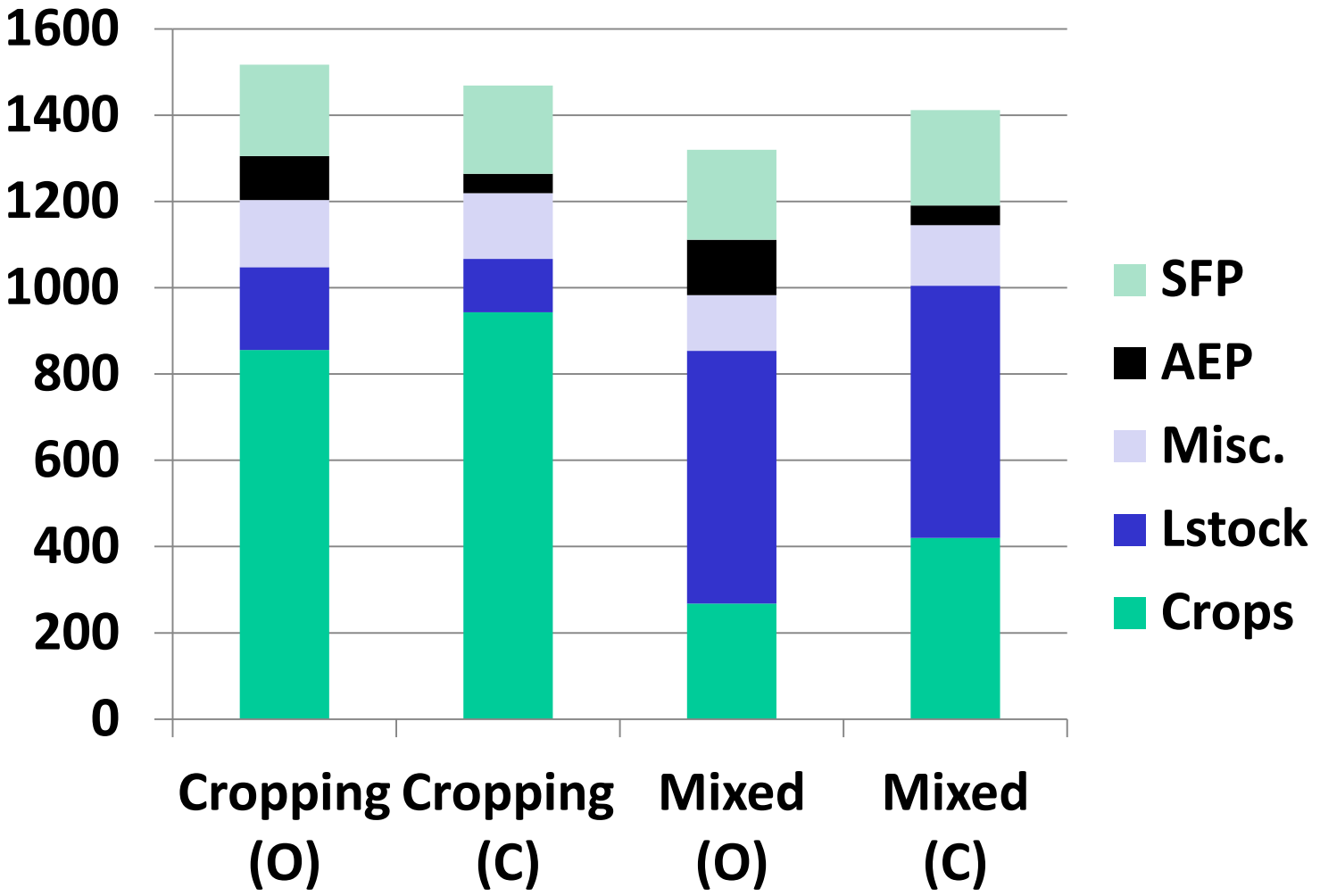
Organic Farm Income Survey

- Annual survey of nearly 200 organic farms in England and Wales linked to FBS, of which
  - 33 cropping farms
  - 22 mixed cropping and livestock
- Potential for significant cost data, including comparisons between organic and non-organic
- Data quite historical when published (2010/11 now available)

Output (£/ha) on cropping and mixed farms, 2010/11



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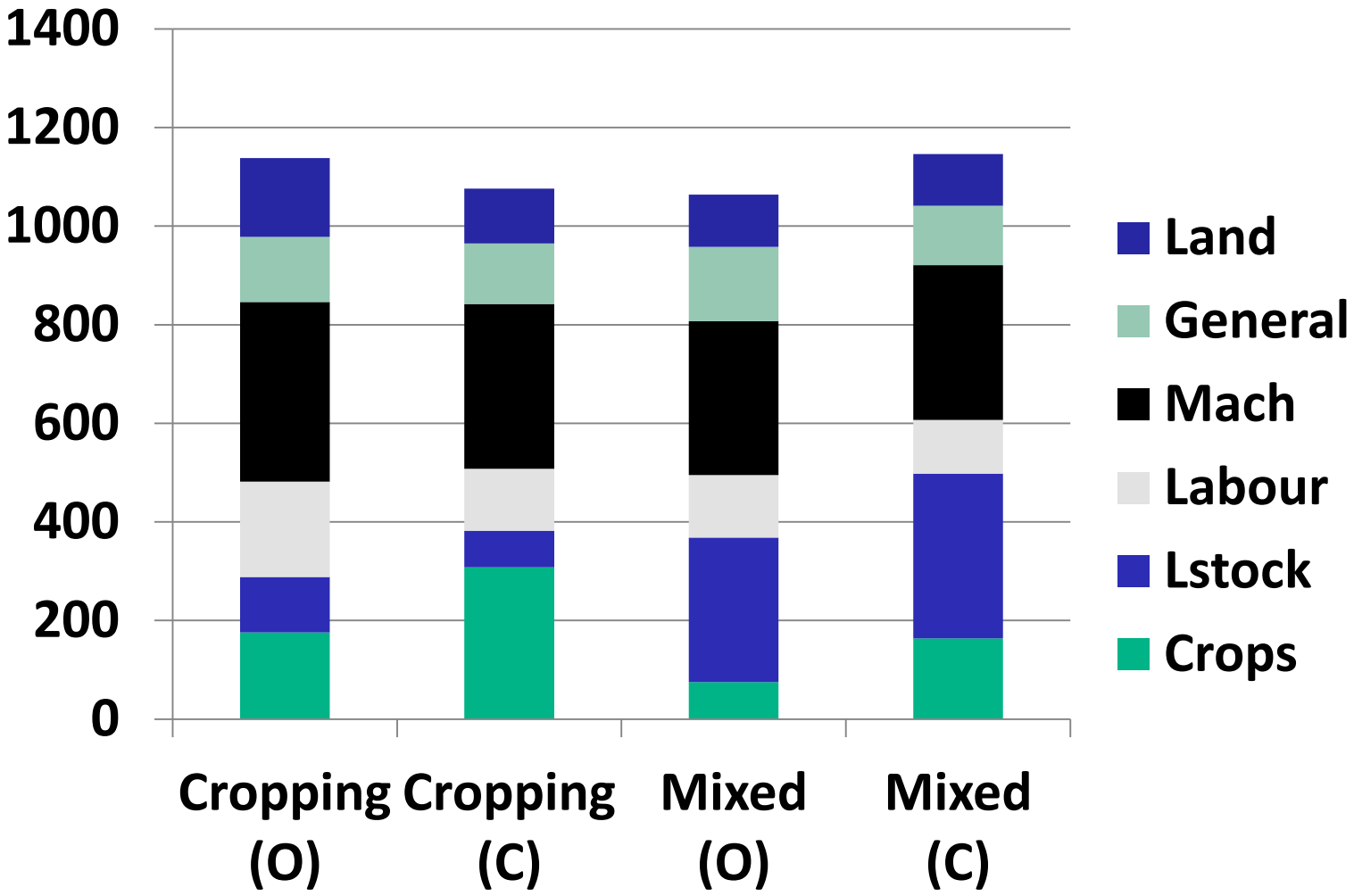
Inputs (£/ha) on cropping and mixed farms, 2010/11



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Farm Business Income (£/ha) on cropping and mixed farms, 2010/11

	Cropping (O)	Cropping (C)	Mixed (O)	Mixed (C)
Sample (n)	33	250	22	101
Size (ha)	254	221	198	174
Output (£/ha)	1518	1469	1319	1411
Input (£/ha)	1139	1077	1064	1147
FBI~ (£/ha)	379	392	255	264
% change*	53%	80%	-10%	12%

~ Farm Business Income

* Compared with identical sample in 2009/10

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On the face of it...

... Compared with non-organic, organic crop producers have similar output, input and income levels to non-organic (non – organic have caught up)

helped by

- Higher agri-environment payments
- Lower crop costs (fewer crops)

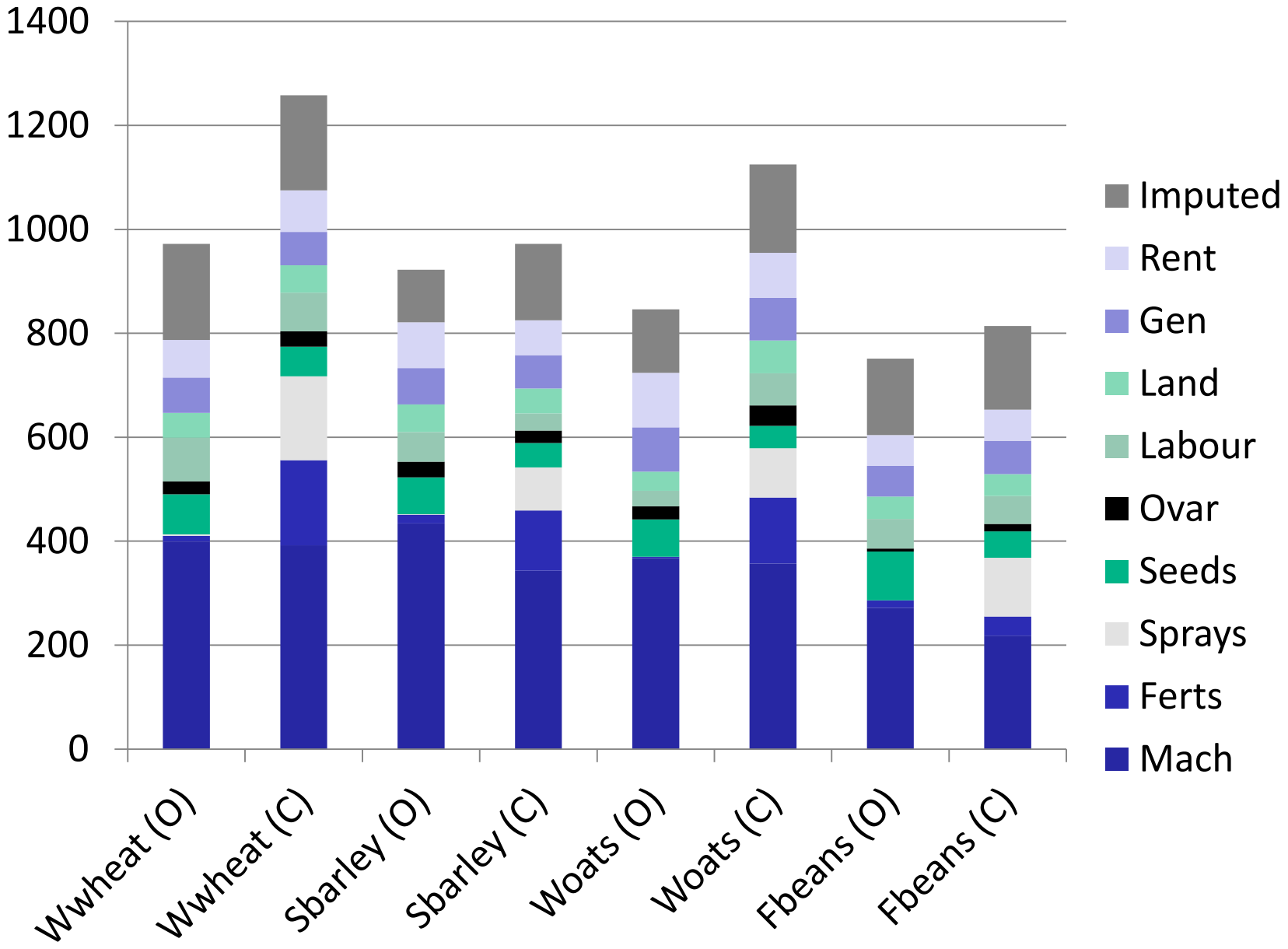
But

- Higher livestock costs because more livestock
- Higher labour costs
- Higher fixed costs and total costs

Crop margins (£/ha), 2010/11

£/ha	Wwheat (O)	Wwheat (C)	Sbarley (O)	Sbarley (C)	Woats (O)	Woats (C)	Fbeans (O)	Fbeans (C)
Sample (n)	28	238	36	113	15	53	29	58
Area (ha)	46	69	22	22	17	16	24	26
Yield (t/ha)	4.3	8.2	3.5	5.1	3.6	6.2	2.1	3.0
Value (£/t)	243	149	224	144	204	145	269	207
Output	1098	1292	883	829	820	1002	577	622
Vcosts	115	412	118	271	100	305	114	215
Gmargin	982	880	765	559	720	697	464	407
Fcosts	670	663	702	556	624	652	489	438
Nmargin	312	217	63	3	96	46	-26	-31
Imputed	185	183	101	147	122	170	147	161
Support	321	318	338	323	340	336	320	282
Tmargin	498	352	301	179	314	212	148	90

Analysis of costs (£/ha)



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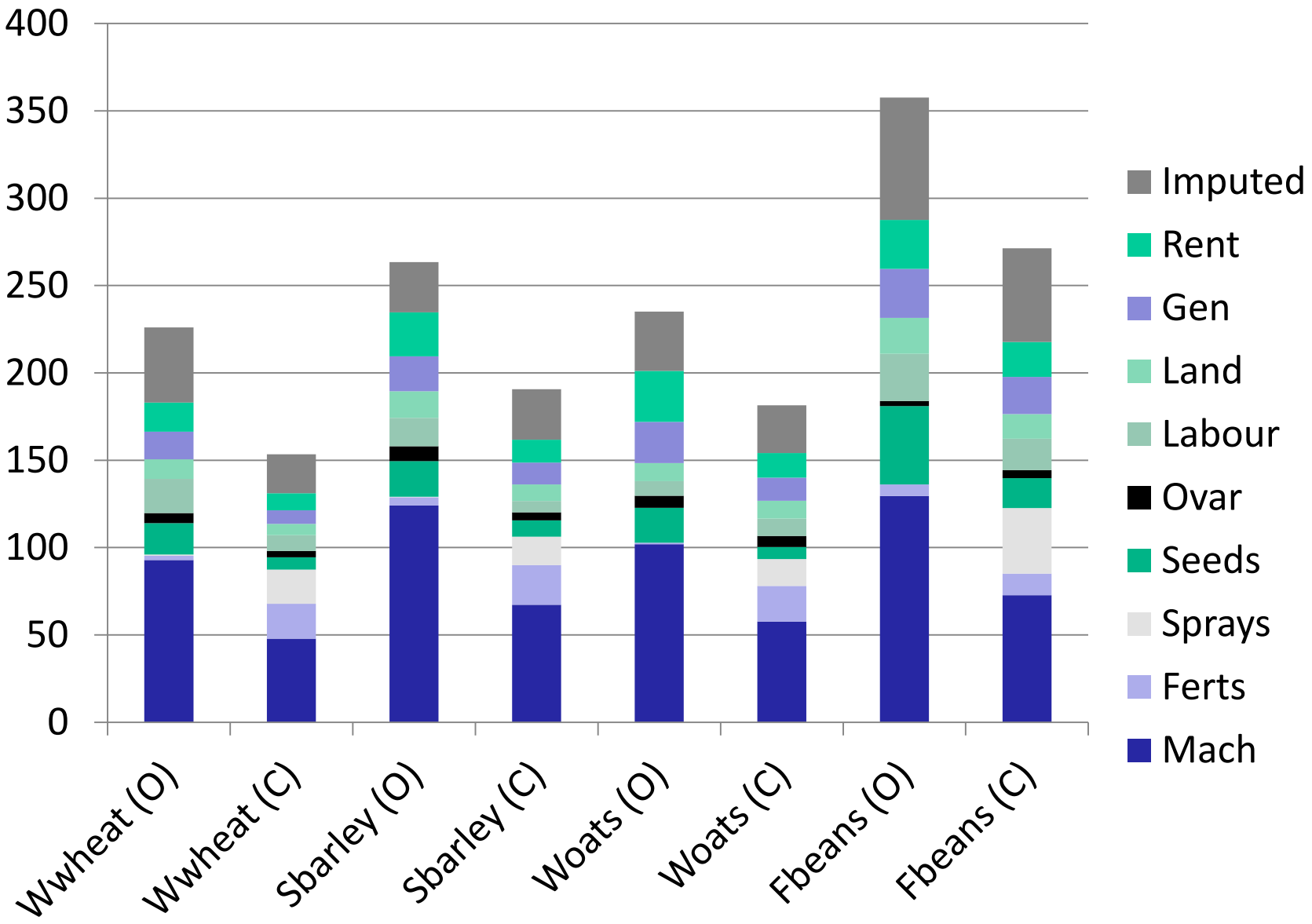
Analysis of costs (£/t)



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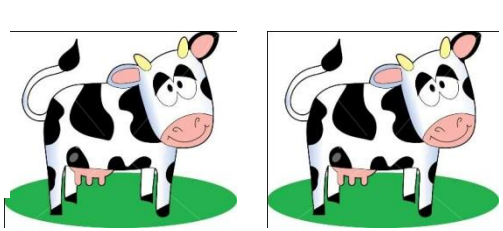
Conceptualising system output

Primary output ---------- Secondary ----- Final









Focus on

- Energy (food and fuel)
  - potential links to Carbon cycle, photosynthesis and GHG
- Nitrogen (protein)
  - potential link to Nitrogen cycle
- Calculate net output
  - i.e. account for output used as intermediate input
- Express in easy terms to comprehend

(+ residual N)

Preliminary results for cropping systems

Type	Description	Sample (n)	Size (ha)	FBI (£/ha)	Input (£/ha)	Yield (tWe/ha)	Profit (£/tWe)	Efficiency (kgWe/£In)
1	Cereals (C)	356	248	225	341	6.9	33	20.2
2	Cereals (O)	20	168	242	66	3.0	81	45.5
3	Cropping (C)	199	225	314	420	11.1	21	26.5
4	Cropping (O)	18	198	386	170	5.0	78	29.3
31	Mixed (C)	127	158	245	202	7.6	32	37.8
32	Mixed (O)	16	225	298	76	3.7	80	48.8

Notes:
C= conventional, O=organic
FBI= farm business income
Input= fossil-fuel based crop inputs (ferts, sprays, diesel) and water
We=Wheat equivalent (excluding residual N)

Key conclusions

- Lower costs per ha, but
- Higher costs per tonne produced
- High price needed to cover costs
- Reduce costs, increase yields?
- But total system context