

Can liquid fraction of pig manure be a profitable N-fertilizer?

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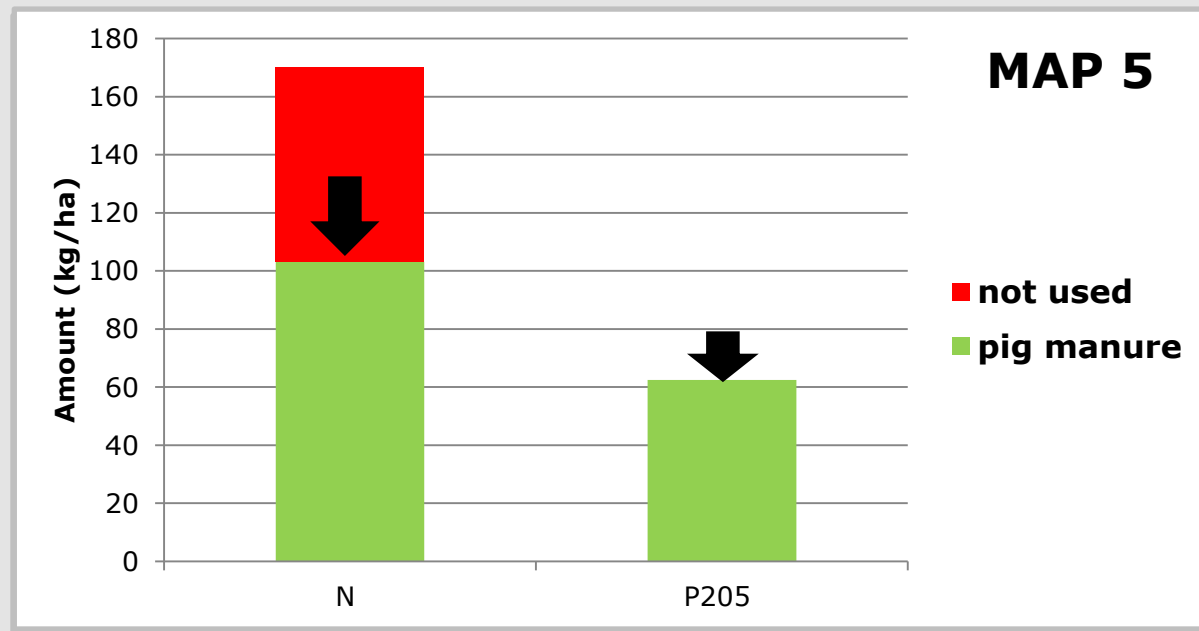
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Context

- MAP 4 to MAP 5: focus on P
- problem with low N/P fertilizers



- impact on:
 - amount manure processed
 - fertilization cost

higher N/P? => liquid fraction of pig manure (LF)

Agronomic performance

- Cauliflower
 - » Franky Coopman



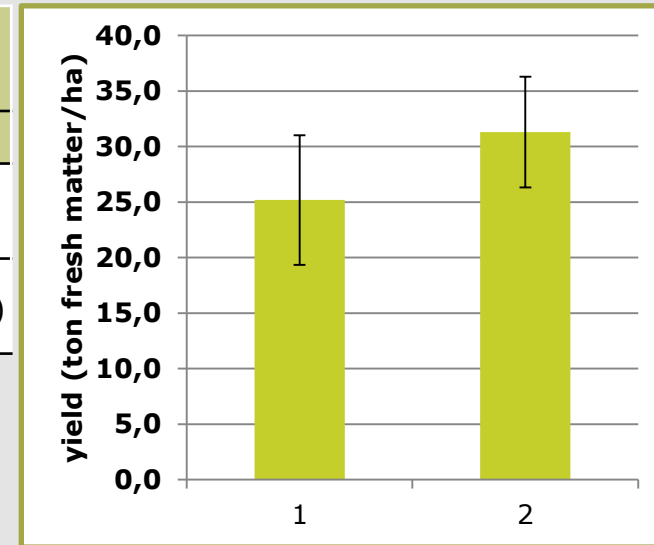
Agronomic performance

- Spinach:

fertilization (synthetic fertilizer)

yield

object	pig slurry	liquid fraction	N _{effective}	N _{tot}	P ₂ O ₅	K ₂ O
	ton		kg/ha			
1	16		32(+95E)	53 (+95E)	21	35 (+247E)
2	12	27	92	137	28	147 (+156E)



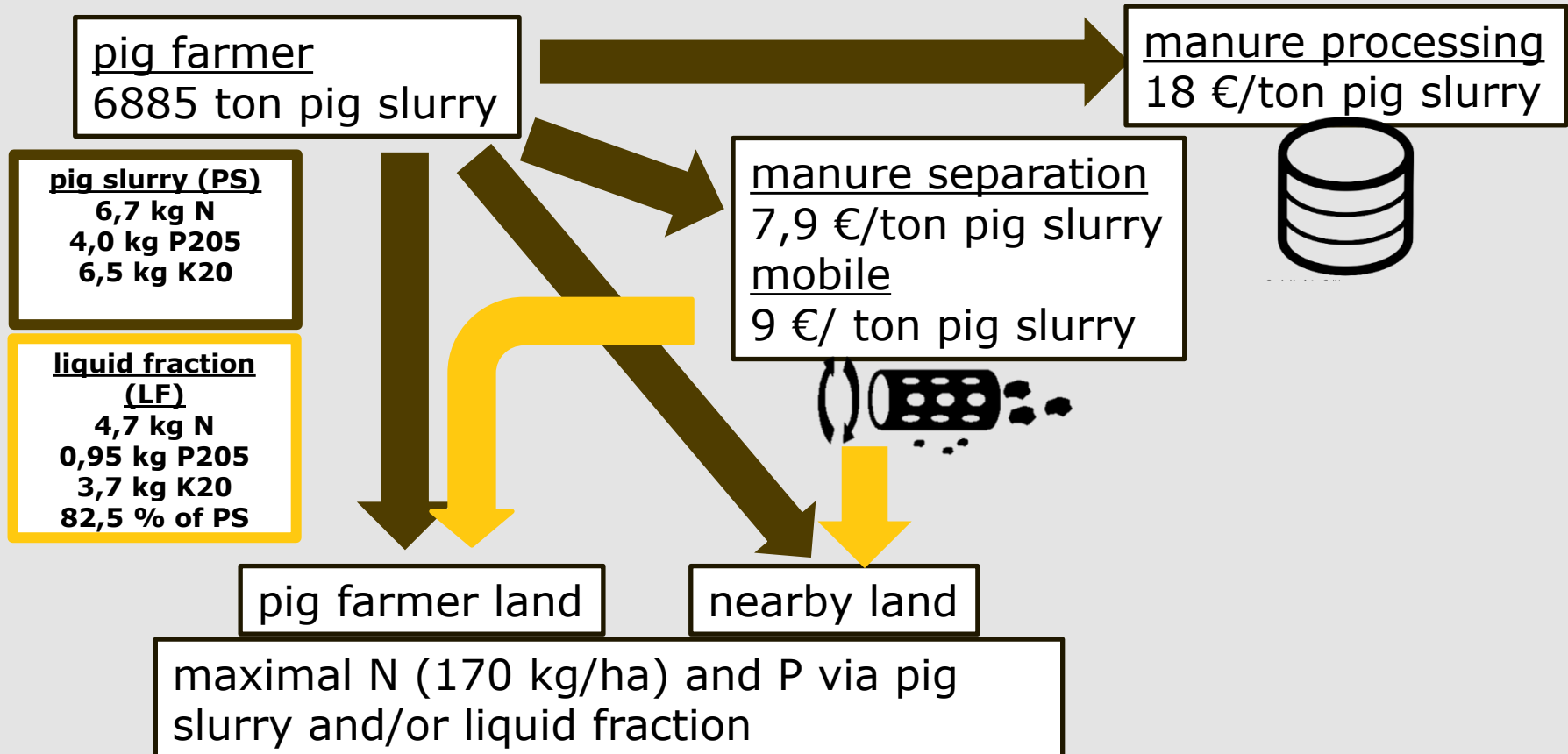
- Liquid fraction pig manure = good fertilizer**



Economic simulation

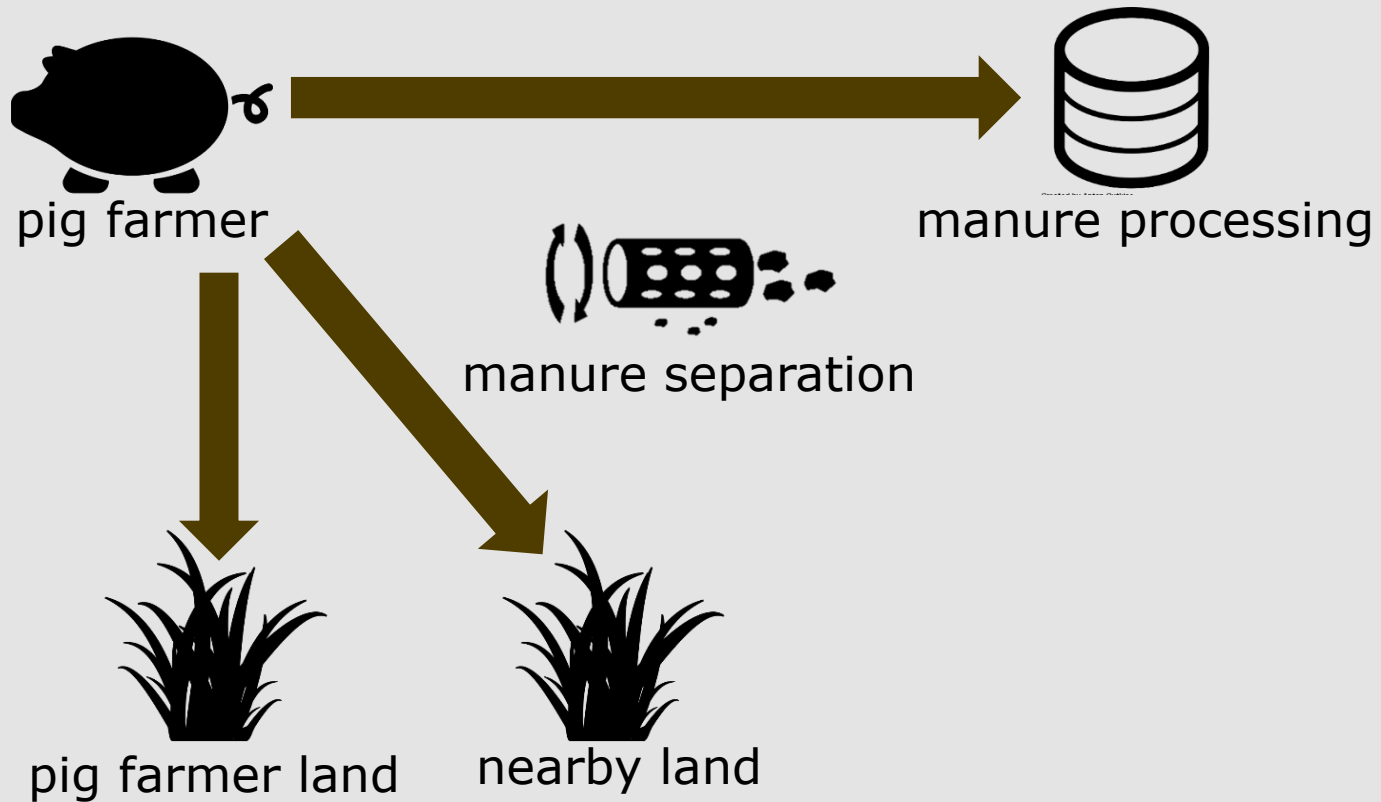
Model

- MAP 5
- P-classification: 40% in IV and 50% in III



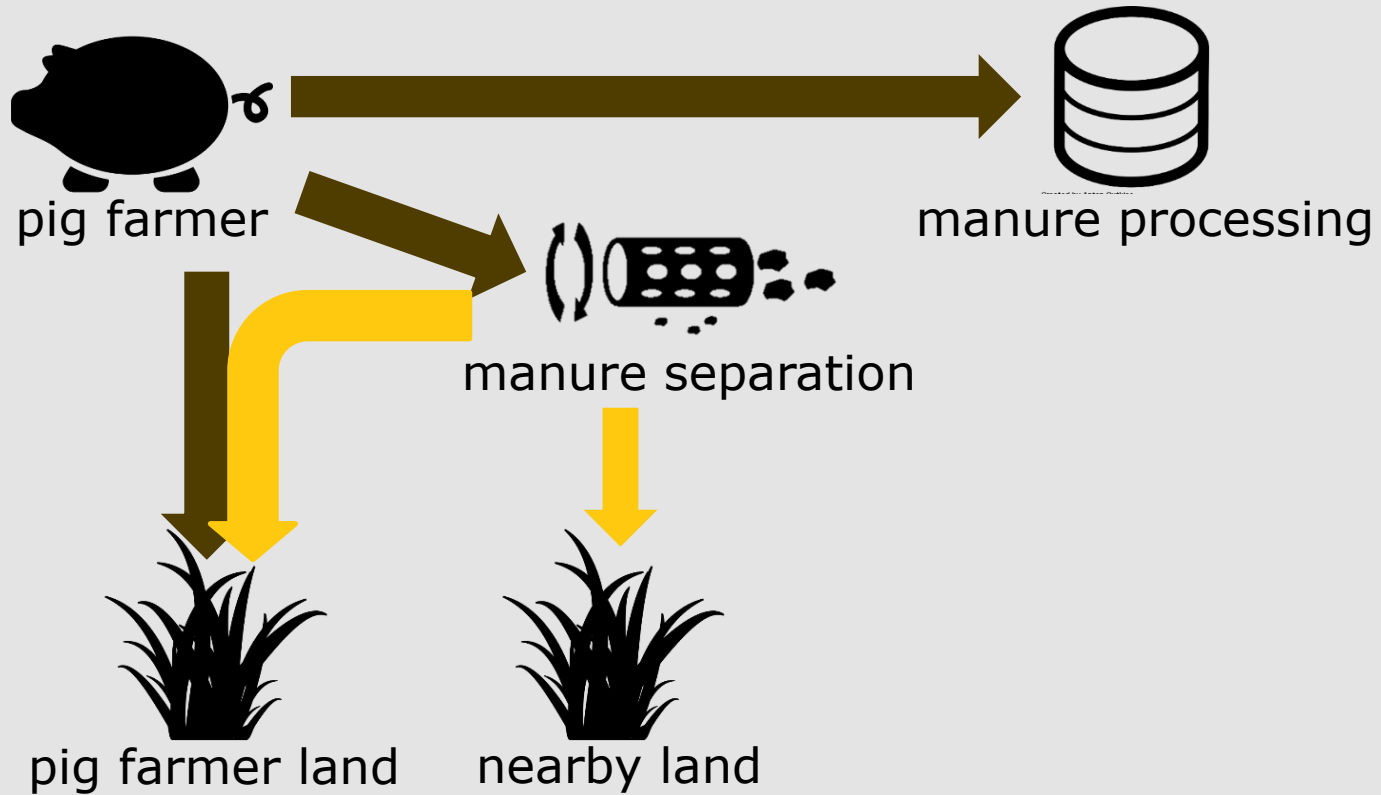
Economic simulation

Reference scenario (PS)



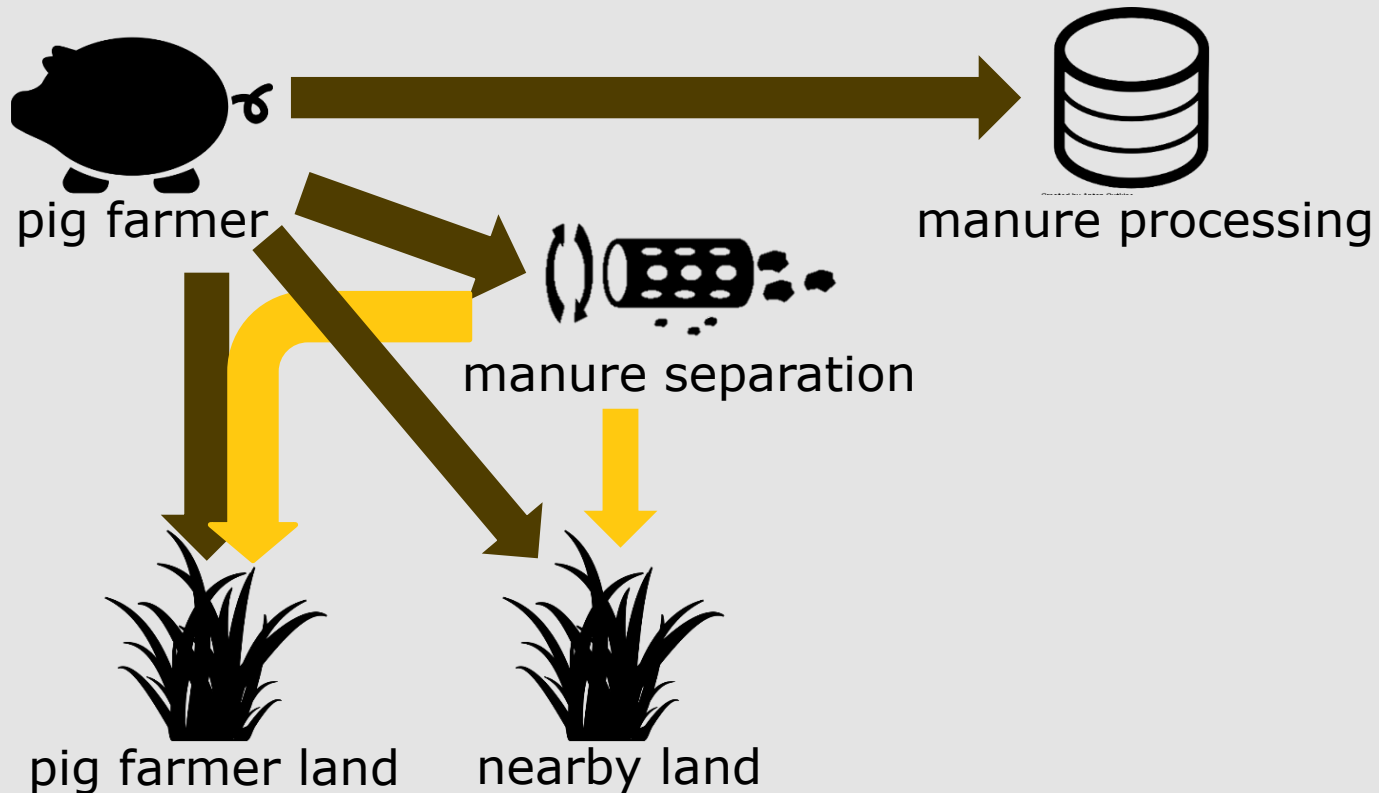
Economic simulation

Liquid fraction scenario (LF)



Economic simulation

Pig slurry + liquid fraction scenario (PS+LF)

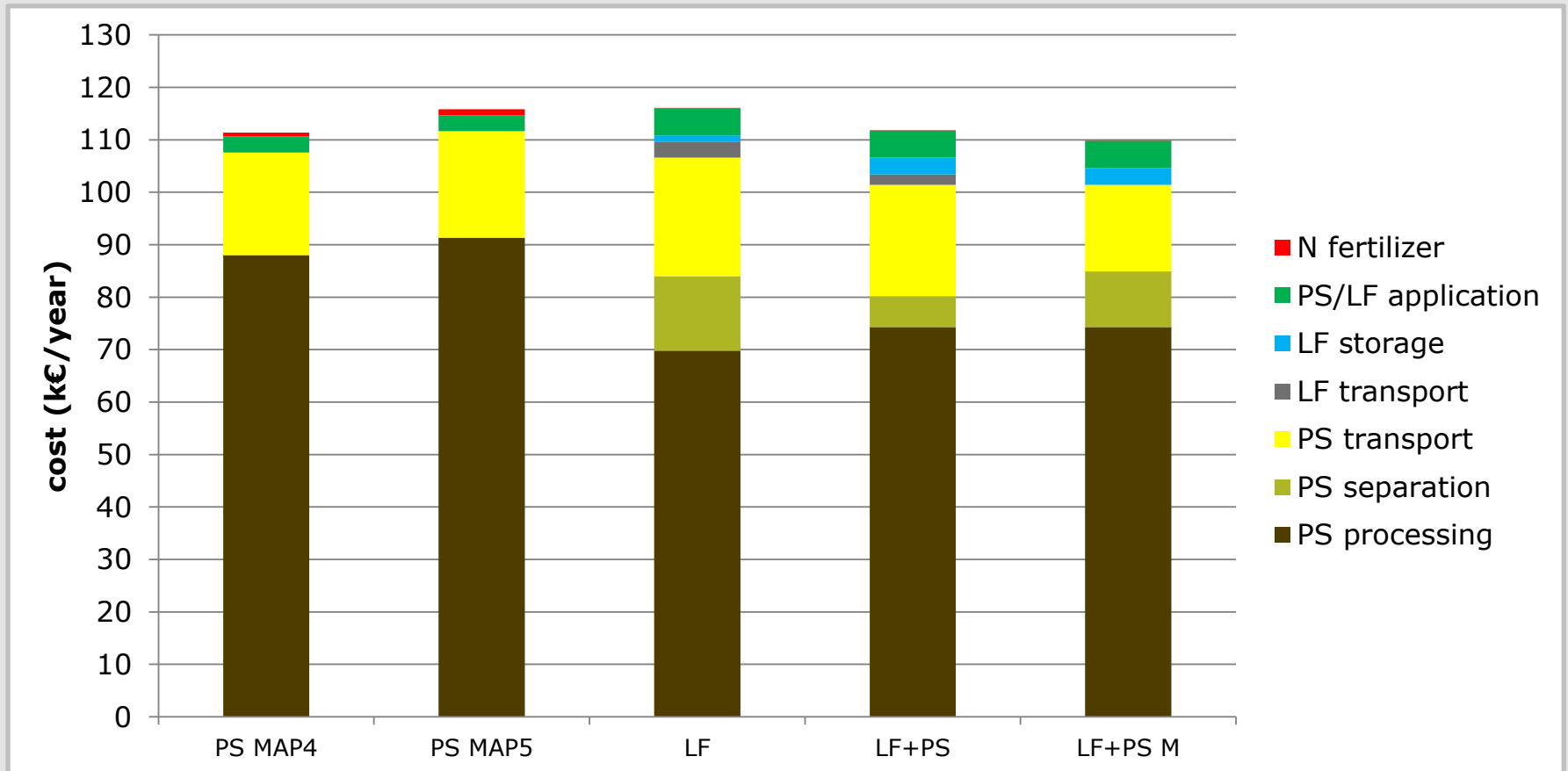


+mobile manure separation unit (PS+LF M) scenario

Economic simulation

Costs

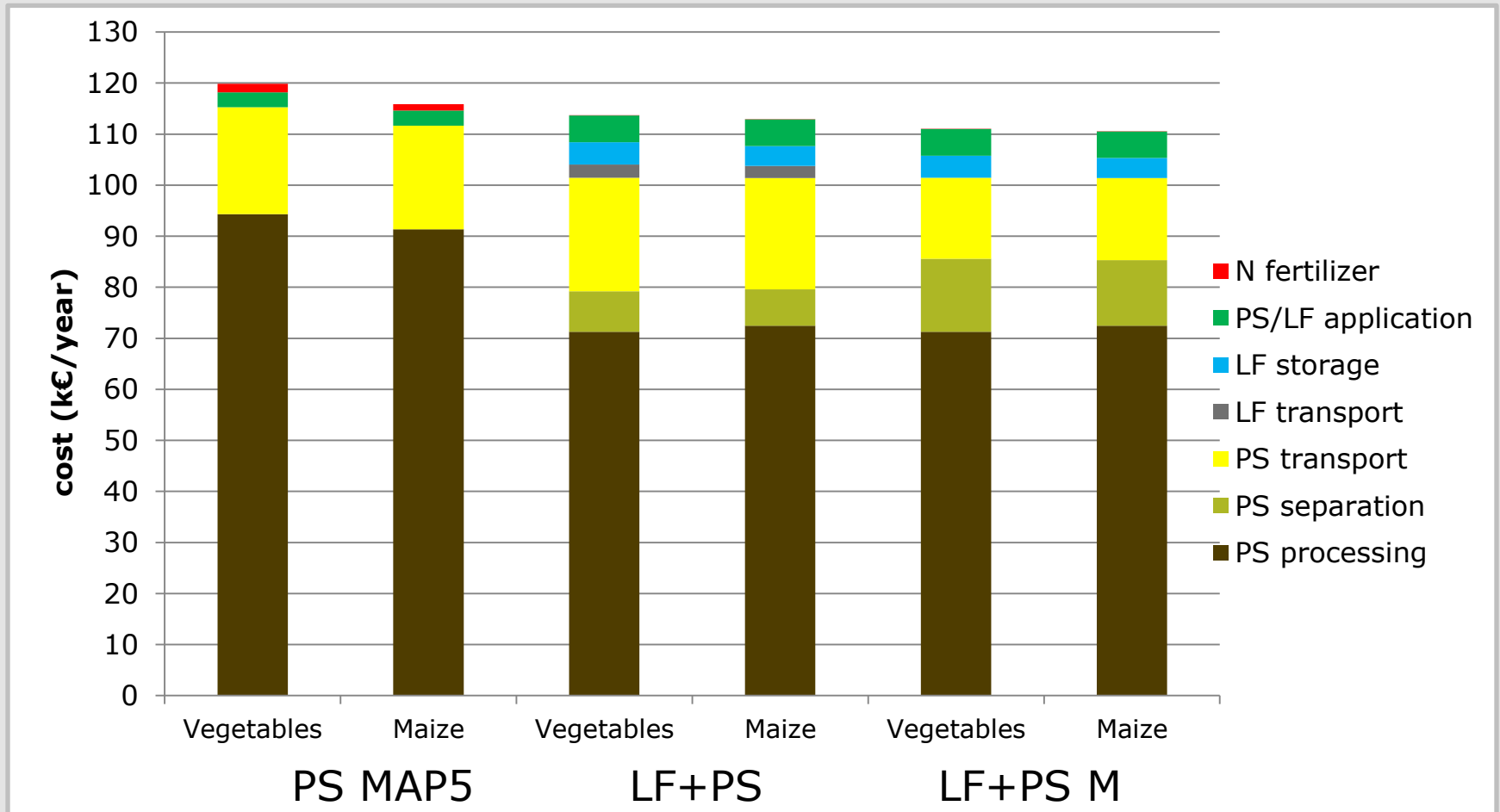
- for 50 (20+30) ha maize



Economic simulation

Influence of crop

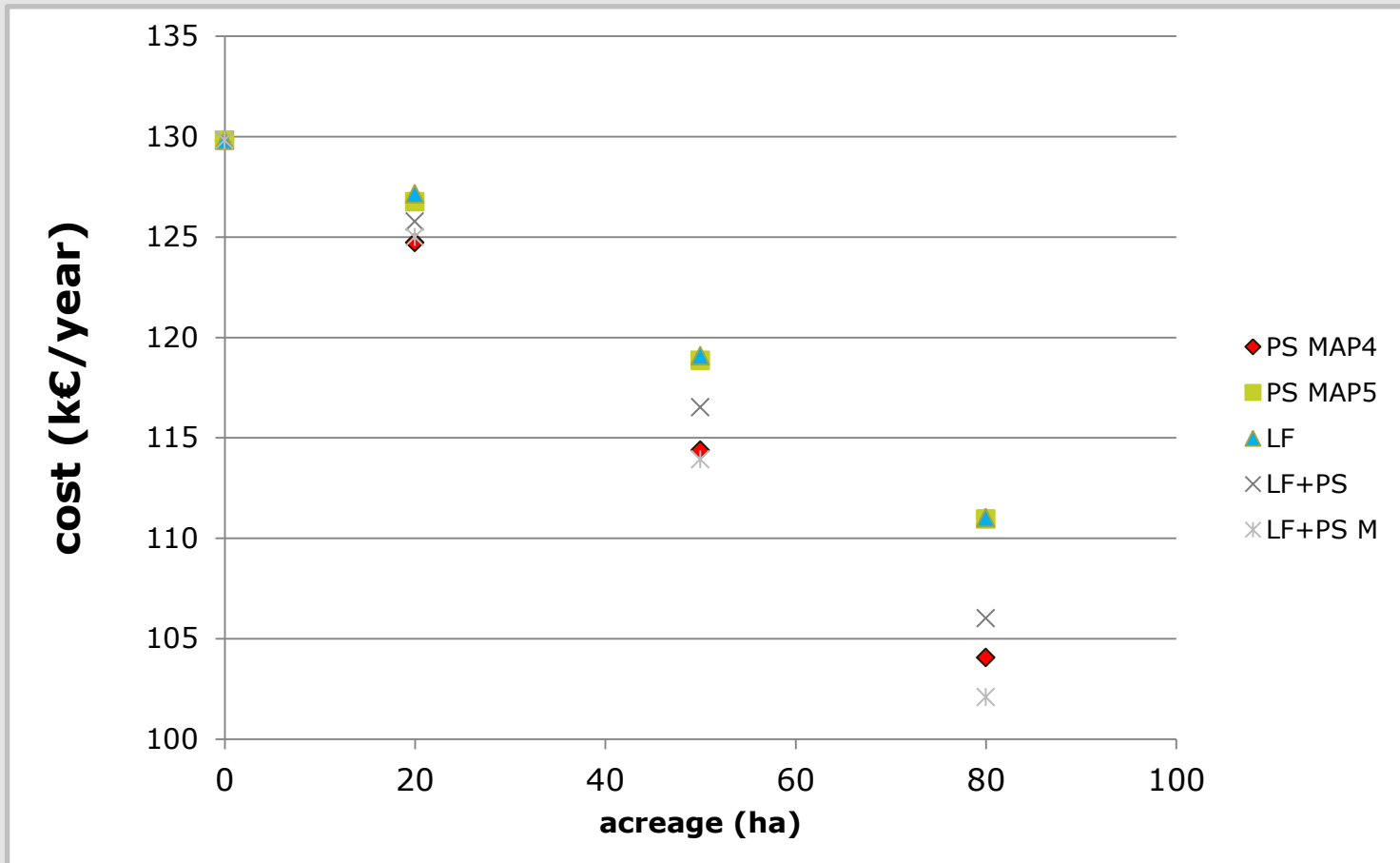
- for 50 (20+30) ha



Economic simulation

Influence of acreage

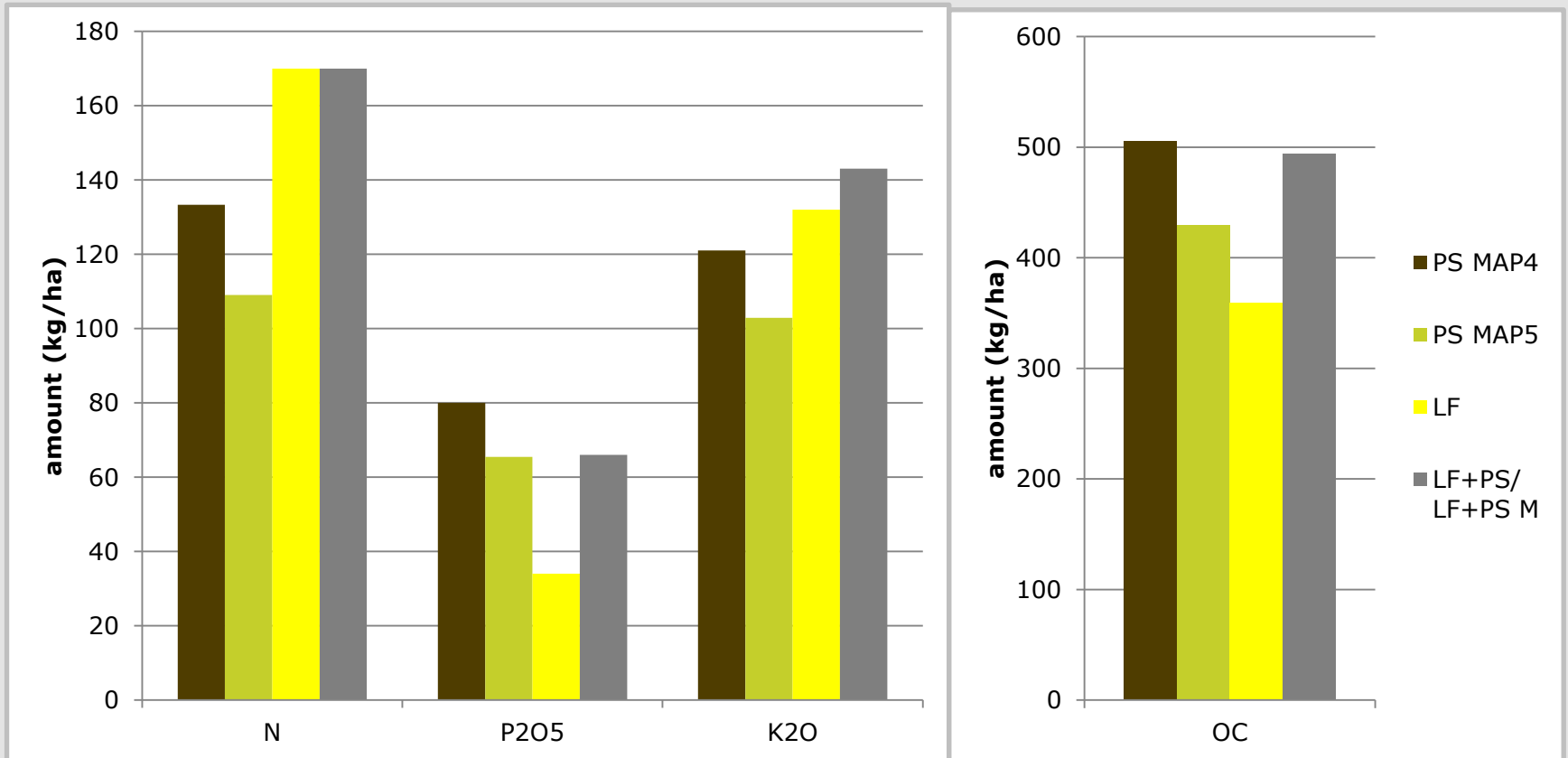
- for maize (20+x)



Economic simulation

Nutrients applied

- per ha maize



Conclusion

- **Liquid fraction of pig slurry+ pig slurry:**
 - reduce total manure costs
 - delivers N, P, K and C to the soil
 - practical amount (ton/ha)
- ⇒ **profitable fertilization strategy**

Questions



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