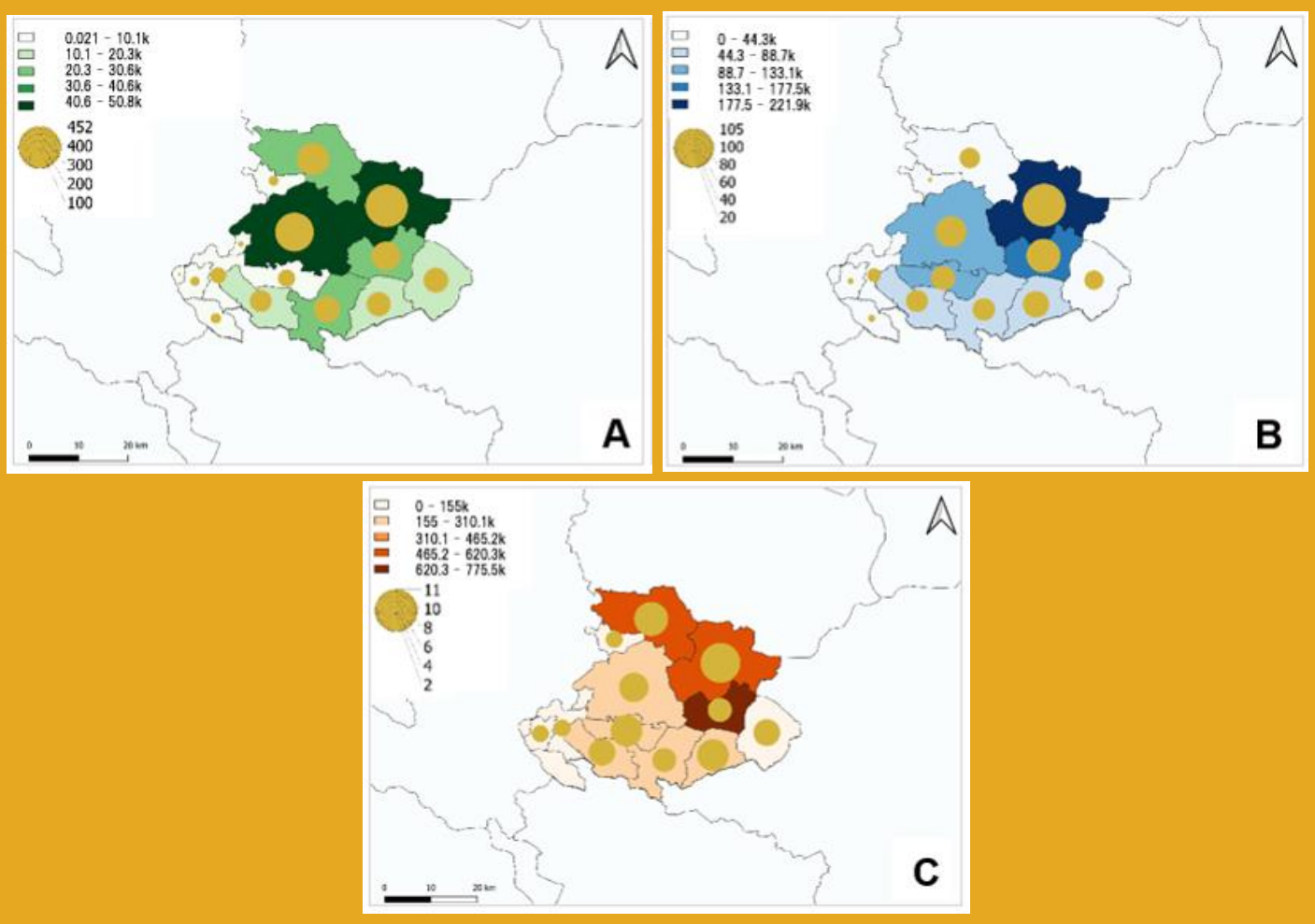
FERTIMANURE

INNOVATIVE NUTRIENT RECOVERY FROM SECONDARY SOURCES – PRODUCTION OF HIGH-ADDED VALUE FERTILISERS FROM ANIMAL MANURE

Actherhoek (The Netherlands) - Region card

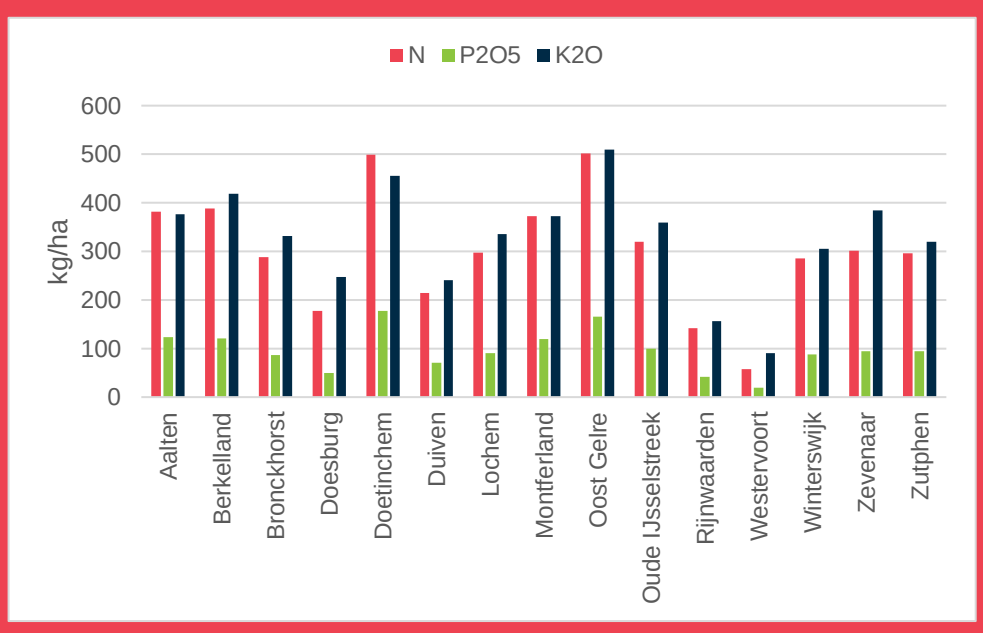
Number of animals (census) per animal type (LSU) per county (NUTS-3).



A: Dairy cows & beef cattle; B: pigs; C: poultry Circles represents the number of farms

Average mineral N, P_2O_5 and K_2O production per ha agricultural area

In the Netherlands the whole agricultural area is designated as Nitrate Vulnerable Zone and in line with the Nitrate Directive the maximum application standard for manure is 170 kg N per ha. Many dairy farms with more than 80% grassland have a derogation and are allowed to apply higher application rates: 230 kg N as manure per ha on sandy and loess soils located in province of Overijssel, Gelderland, Utrecht, Noord Brabant or Limburg and 250 kg N as manure per ha elsewhere.



Manure management

Type of treatment	Equipment used	Costs (in ranges)
Separation (10,000 ton/y)	Drum sieves / screw press	0.75 - 1.5 €
	Sieve belt / centrifuges	2-3 €
Drying & pelleting	Only solid fraction	8-15€
Composting	Extensive (outside; months)	6 €
	Intensive (inside; aeration; 1-2 wk)	15 – 25 €
	Incl. pelleting and sanitation	25 €

The Achterhoek region is a sandy region. In the Manure Act of the Netherlands also maximum application standards for phosphate have been defined. The average phosphate application standards depend on the soil P status and crop type. If the soil P status is sufficient the phosphate application rate is 90 kg P_2O_5 per ha for grassland and 60 kg P_2O_5/ha for arable land. Both are considered as average equilibrium phosphate application rates.

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