Pilot farm

Marinus, Arja & Floren de Vries

Stolwijk

FARM STRATEGY:

"Developing a viable farm with grazing.
Key points: mineral efficiency, integrate nature in the farm,
preventing soil subsidence by means of under water drainage"

FARM CHARACTERISTICS 2022:

Soil type	veen
Grassland (incl. 6.7 ha natural grassland)	52,5
Maize (ha)	11,0
Ha natural land	10
Cows	143
Young stock	44
Young stock/10 cows	3,1
Quota (kg)	1.358.922
Milk production (kg/cow/yr)	9.503
Intensity (kg milk/ha)	18.587
Compound feed (cow/year)	2.544
Incl. young stock	
Milking parlour	2x12 side by side
Stable	Free Walk

MILESTONES :

1995- Taking over the farm

2001- New young cattle shed

1997-2011- Purchase 14 ha land, 290.000 kg milk quota

1998 - Participant Koeien & Kansen

2013 - Building compost bedded pack barn

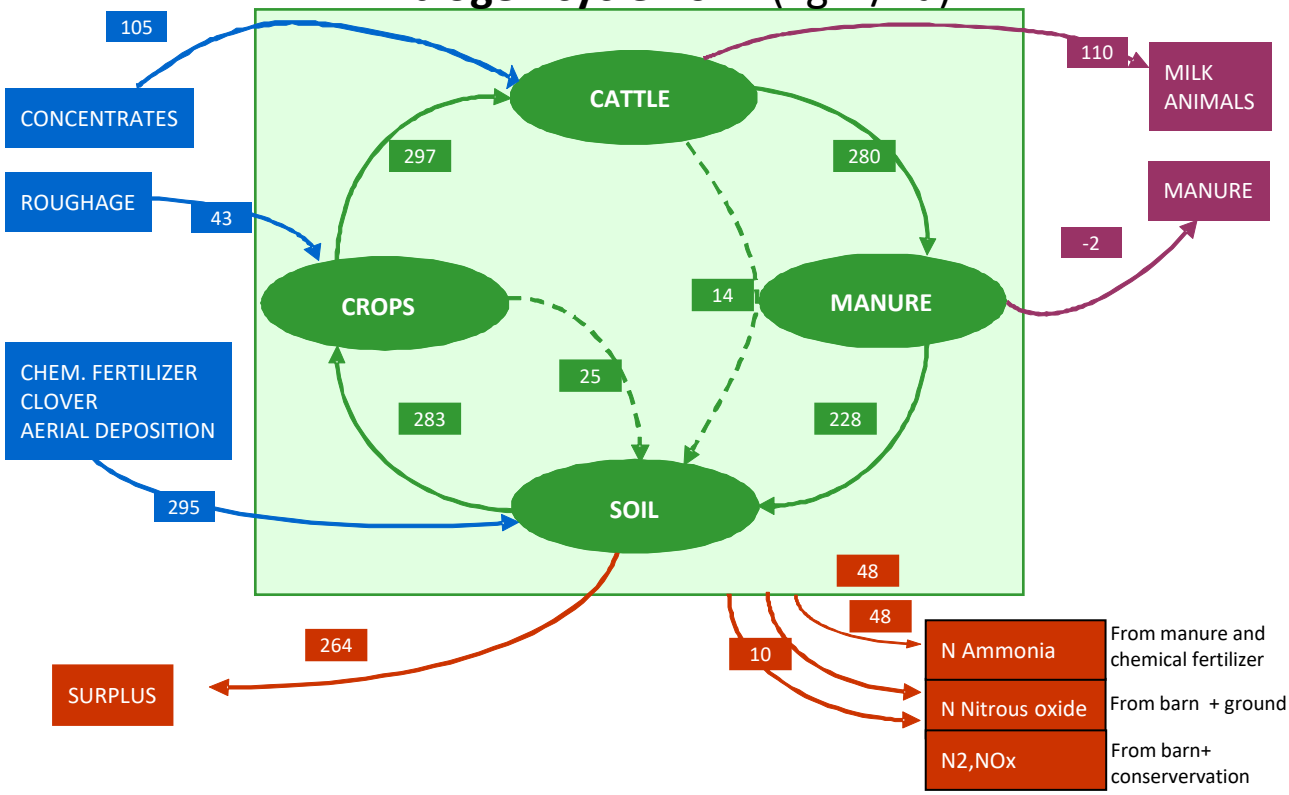
2021: Test facility Hanskamp with Bedding Cleaner in a sand bed

Fertilization 2022

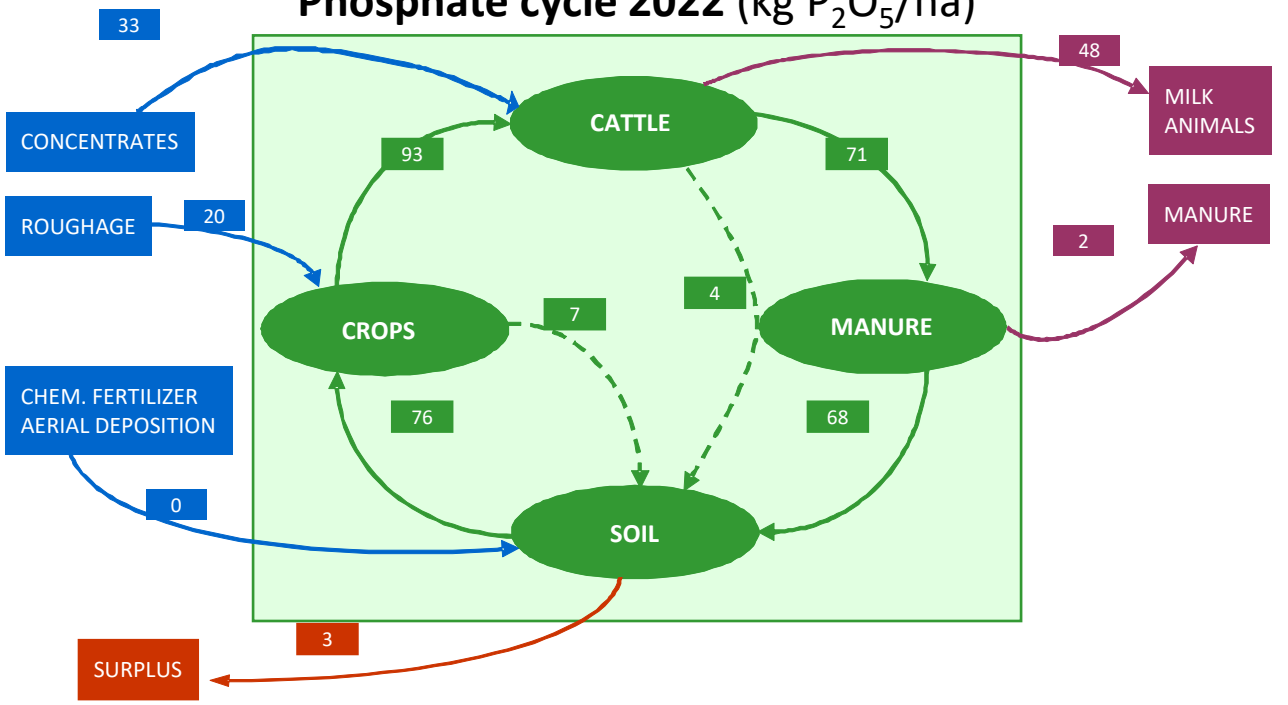
(per ha)	Nature grass m³	Nature grass kg N	Nature grass kg P_2O_5		Grassland m³	Grassland kg N	Grassland kg P_2O_5		Maize m³	Maize kg N	Maize kg P_2O_5
Slurry	55	20	5	-	239	73	45		125		52
Chemical fertil.		0	0		86	0			53		0
Manure (graz.)		3	1		69	18			0		0
mineralization		235			235				0		
deposition		22			22				22		
TOTAL		280	6		650	91			200		52

* Gross amount of N, so incl. NH3 losses during application/grazing
The amount of nitrogen is not only the active part, but total

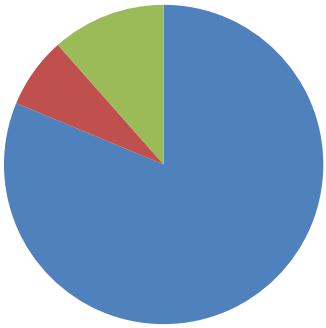
Nitrogen cycle 2022 (kg N/ha)

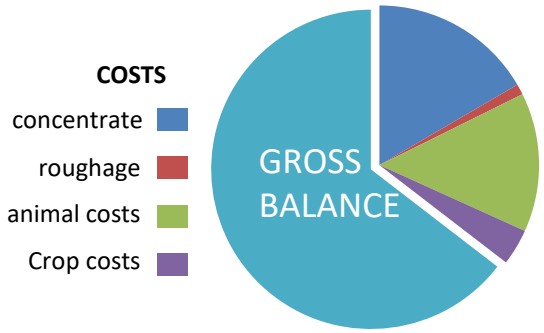


Phosphate cycle 2022 (kg P_2O_5/ha)



Farm economics (2021)

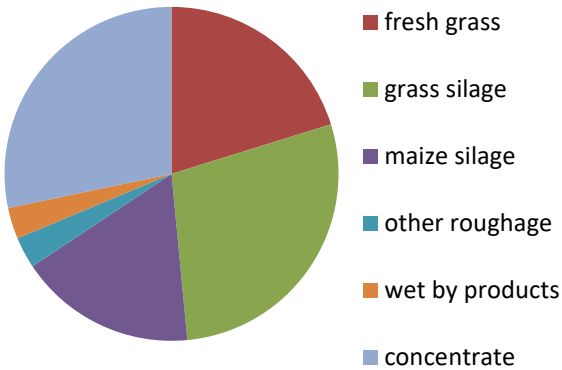




	€/100 kg milk
YIELDS	
milk	39,52
animal	3,50
other	5,60
	48,63
COSTS	
concentrate	7,63
roughage	0,49
other fodders	2,21
breeding	0,65
animal health	1,67
other animal costs	3,70
fertilization	0,70
other crop costs	0,53
Cost for manure disposal	0,45
Other. variable costs	0,91
Total costs	18,95
GROSS BALANCE	**29,68**

Animal Nutrition 2022

Ration characteristics complete herd	
RE-VEM (energy)-content ration (g/kg dm)	981
content total ration (g/kg dm)	156
P content ration (g/kg ds)	3.3
kg concentrate / 100 kg milk (incl. young)	27
Nitrogen efficiency complete herd (%)	28
Phosphate efficiency complete herd (%)	40
kg FPCM / kg dm feed intake	1.26
Ration composition (%)	
fresh grass	20
grass silage	28
maize silage	17
other roughage	3
wet by products	3
concentrate	28



Improvement projects

ECONOMY
- *Controlling cost with a focus on animal health*
- *Sustainable dairy herd*

ENVIRONMENT
- *Meet the legal standards*
- *Methane emission*
- *Make more manure storage*
- *Sow more clovers/herbs*

LABOUR
- *reduce working time by building stable with parlor*

Steps

Period	Action	Improvement
2011	Reduce costs animal health	higher yield per kg milk
2011	Building bedded pack barn	improvement cow welfare and labour
2011	Replace concentrate + more corn in ration	reduction methane (CH4) emission
2017	Crossbreeding with Jersey	more efficient cow
2017	Farm water Index	better water quality
2022	Participation Low Carbon Farming	

“Family business with outdoor grazing for healthy cows”

“Accurately feeding is very important. Take enough time, because with a good feed efficiency the cows are healthier.”

“Prevention of soil subsidence, reaching a better carrying capacity by underwater drainage and clay in peat.’’

Pilot farmers are also members of the Dutch project Cows & Opportunities. In this project 16 dairy famers. KTC De Marke. Wageningen UR and advisory services cooperate. On request of the ministry of Agriculture and the Dairy Board the project evaluates and improves the effectiveness and feasibility of the (proposed) environmental legislation in farm practice and supports the Dutch dairy sector with its implementation. Cows & Opportunities works at a future for neat dairy farmers. The results are found at: www.koeienenkansen.nl (in Dutch).