



**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 2021:**

Soil type	veen
Grassland (incl. 6.7 ha natural grassland)	55,4
Maize (ha)	10,3
Ha other fodders	0.0
Cows	133
Young stock	39
Young stock/10 cows	2,9
Quota (kg)	1.273.645
Milk production (kg/cow/yr)	9.576
Intensity (kg milk/ha)	19.401
Concentrate use (kg/100kg milk)	2.161
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

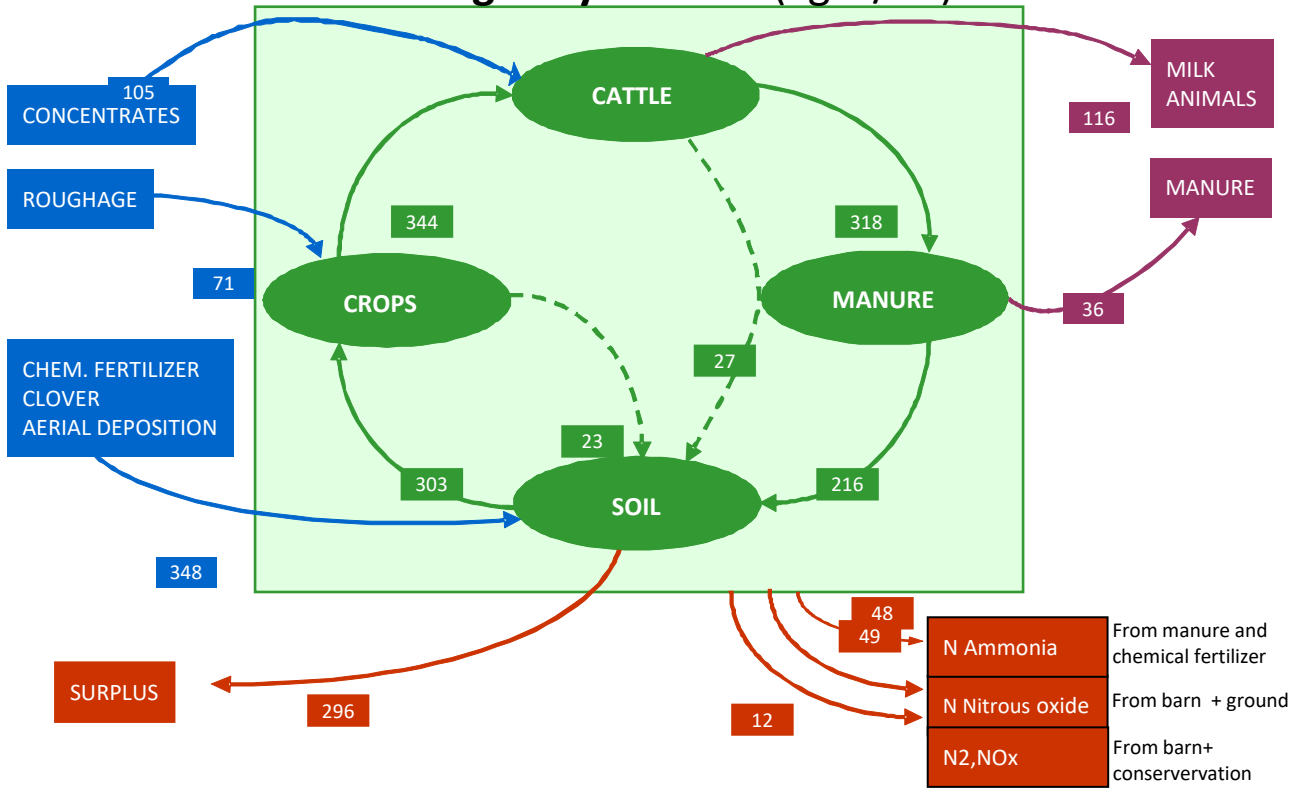


# Fertilization 2021

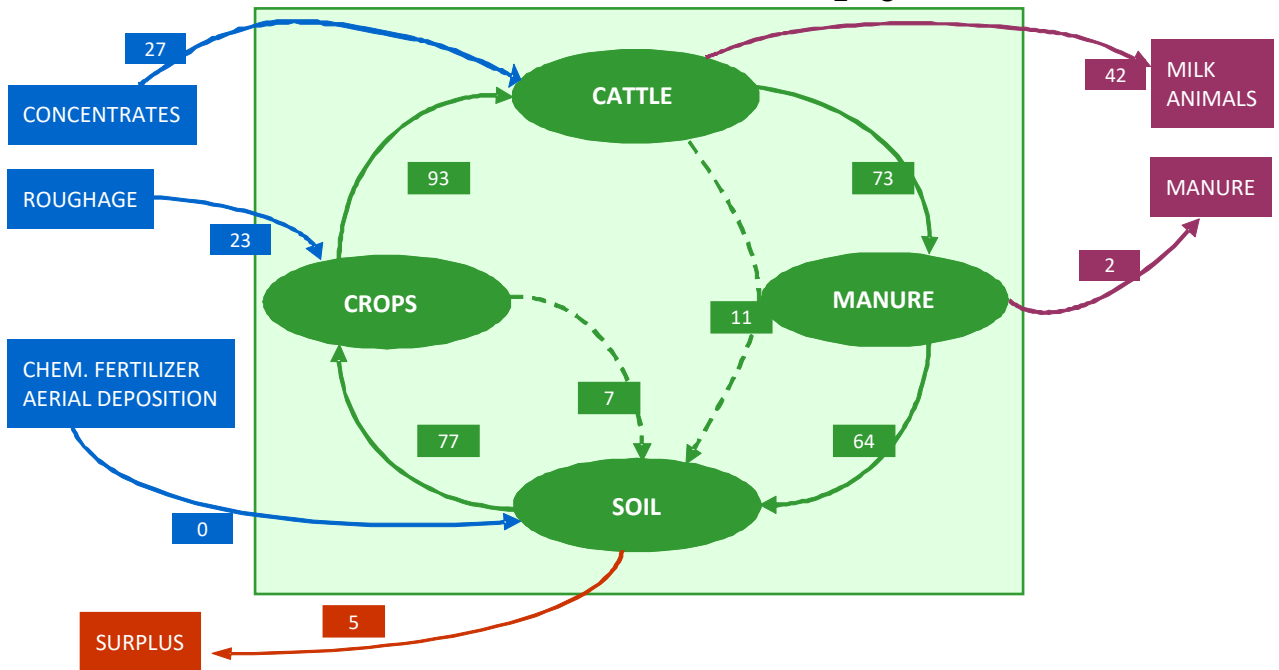
(per ha)	Nature grass			Grassland			Maize		
	m <sup>3</sup>	kg N	kg P <sub>2</sub> O <sub>5</sub>	m <sup>3</sup>	kg N	kg P <sub>2</sub> O <sub>5</sub>	m <sup>3</sup>	kg N	kg P <sub>2</sub> O <sub>5</sub>
Slurry	2	141	24	52	251	64	53	174	52
Chemical fertil.	-	0	0		111	0		100	0
Manure (graz.)	-	4	1		58	16		0	0
mineralization		235			219			235	
deposition		27			27			27	
<b>TOTAL</b>		<b>406</b>	<b>25</b>		<b>666</b>	<b>80</b>		<b>536</b>	<b>52</b>

\* Gross amount of N, so incl. NH<sub>3</sub> losses during application/grazing  
The amount of nitrogen is not only the active part, but total

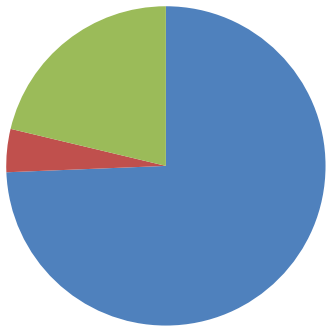
## Nitrogen cycle 2021 (kg N/ha)



## Phosphate cycle 2021 (kg P<sub>2</sub>O<sub>5</sub>/ha)



## Farm economics (2021)



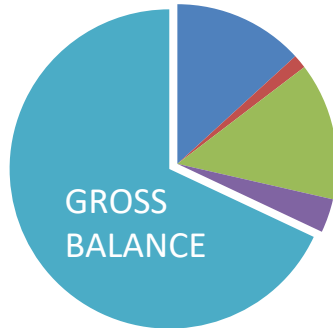
### YIELDS

- milk
- animal
- others

€/100 kg milk	
<b>YIELDS</b>	
milk	39,2
animal	2,3
other	11,2
	52,7
<b>COSTS</b>	
concentrate	6,5
roughage	0,7
other fodders	2,9
breeding	0,7
animal health	2,1
other animal costs	3,4
fertilization	0,6
other crop costs	0,4
Cost for manure disposal	0,3
Other. variable costs	1,4
<b>Total costs</b>	<b>19,1</b>
<b>GROSS BALANCE</b>	<b>33,6</b>

### COSTS

- concentrate
- roughage
- animal costs
- Crop costs



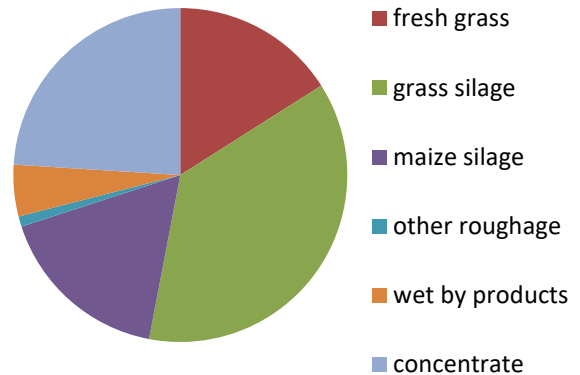
## Animal Nutrition

### Ration characteristics complete herd

VEM (energy)-content ration (g/kg dm)	986
RE-content total ration (g/kg dm)	159
P content ration (g/kg ds)	3.5
kg concentrate / 100 kg milk (incl. young)	28
Nitrogen efficiency complete herd (%)	27.1
Phosphate efficiency complete herd (%)	36.7
kg FPCM / kg dm feed intake	1.24

### Ration composition (%)

fresh grass	16
grass silage	37
maize silage	17
other roughage	1
wet by products	5
concentrate	24



## Improvement projects

### ECONOMY

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

### LABOUR

- reduce working time by building stable with parlor

### ENVIRONMENT

- Meet the legal standards
- Methane emission
- More corn in ration
- Make more manure storage



## 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

*“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.”*



Pilot farmers are also members of the Dutch project Cows & Opportunities. In this project 16 dairy farmers, 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.koeienkansen.nl](http://www.koeienkansen.nl) (in Dutch).