



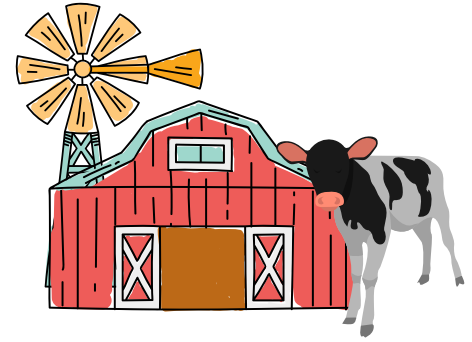
CALF FARMS IN FLANDERS

PRESENTATION OF THE SECTOR



Distribution:

- Livestock:
 - 250 farms in total
 - In average, 590 calves/farm
 - 92% of those farms own at least 200 veals
- Share of Total Production:
 - 95% located in Flanders
 - Of which 70% is located in the Antwerp province



Total Herd (in 2011): 148 550 calves cf. 276 herds in total

ENERGY NEEDS

Average Energy Consumption:



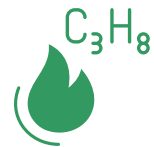
- **Total needs:** 152kWh/year/place (15% operating costs)
- **Feeding:** 108 kWh/year/place (71% of total consumption)



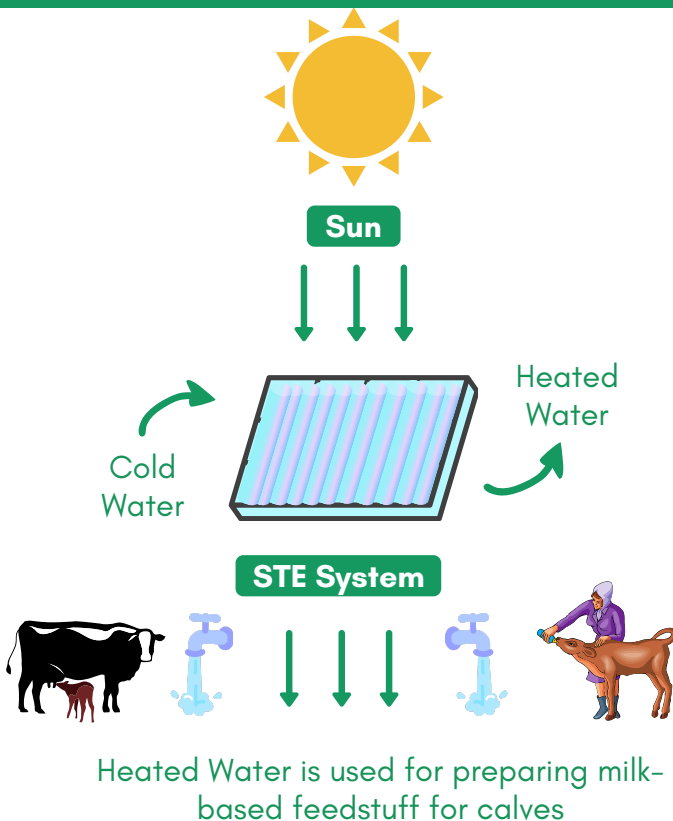
- **Water Supply:** (MA Flemish) 10 heated L/day/calf



- **Energy:** propane (81%-11kg/calf)



MODELISATION OF FUNCTIONING



POTENTIAL FOR SOLAR THERMAL ENERGY (STE)

Hot Water in Dairy farms:

- Regular without depending on seasonality & Daily needs
- Decline of propane (66% vs RE 37%) & savings with STE up to 66%
cf. 5kg propane (STE) vs 11kg (Prior)

Relevant Cases:

- Farm rearing at least (average):
 - 185 calves during 6 months cf. 2 lots/year
 - 164 calves over 8 months cf. 1.5 lots/year-lot= 123 calves
- Energy needs: ≥ 20000 kWh/yea

Example: Typical Flemish Calf Farm

- 590 calves needing 10L (hot)/day => 5900L/day for all (heated drink)
- 2 153 500 L* at 80° / year (X lots)
* 1 978 000 L if 1 month of sanitary vacuum / only 11 months of activity
- 108 kWh/place/y => 63 720 kWh/y