CALF FARMS IN FLANDERS

PRESENTATION OF THE SECTOR

Low carbon

Interreg North-West Europe ICARE4FARMS

European Regional Development Fund

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

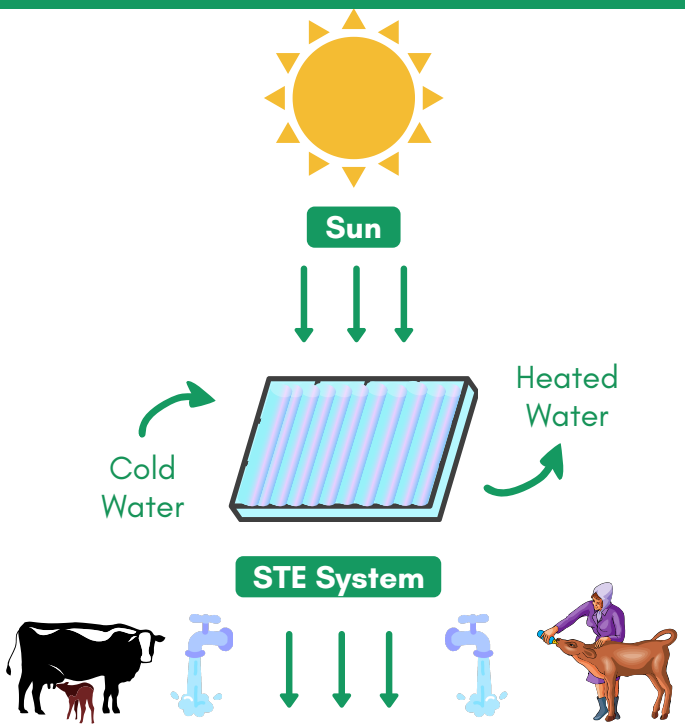
ENERGY NEEDS

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)

C_3H_8

MODELISATION OF FUNCTIONING



Heated Water is used for preparing milk-based feedstuff for calves

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

Sources: Market Analysis I4F: www.nweurope.eu/icare4farms