Holistic approach for nutrient management

MILK

1 Description of the innovation

Considering and optimizing the farm based on a holistic approach: change of barn construction - change of organic fertilizer specifics - improvement of soil-fertility - more vigorous plants - better fodder quality - improvement of animal welfare and performance .

Needed developments for the future: expanding agriculture neglects natural principles and required diversity; ecological benefits have to become more important and must be achievable without high costs; replacement of part of the slurry application by solid manure

Environment quality

Grassland quality

Animal welfare

Change of nutrient management to improve environment quality

Different focus in breeding; change to: easy calving, high feed uptake; focus on high fodder quality ("clean silage", containing a high diversity of plant species, high energy content in combination with structure)

2 Farm description

ENVIRONMENT

Soil types : Mainly moor and marshland

Temperate c oceanic limate

Average Altitude –1.2 m a.s.l.

No Slope

GRASSLAND MANAGEMENT

Grazing: Rotational stocking, 6 months grazing period

Fertilization: Focus on solid manure; less slurry

STRUCTURE

Annual Work Unit: 2 (one fulltime, two part-time) plus one internship

Agricultural Area : 70 ha UAA

Breeds: HF; Red Holstein and Swedes Rot-bunt

140 dairy cows

ANIMAL PERFORMANCE

7300 l /year/dairy animal; high protein content

WHY IT IS WORKING

Farmer questioned established procedures and was willing to change his farming system; aim: optimizing production within the farm, a certain amount of intuition for natural processes is also considered necessary.