

Farm data

- Type of farm: crop production
- Size of farm: 40 ha
- Main production:
 - Potatoes (8 ha)
 - Cereals (32 ha)
- Crop Rotation: (three yeared)
 - 1: Barley, barley, winter wheat
 - 2: Potatoes, barley, winter wheat
- Soil mix:
 - Sandy loam 75%
 - Clay loam 25%
- Nutrient
 - Manure (broadcast spreading+direct ploughing)
 - Mineral fertilizer (broadcast spreading+cultivation)

Farm Practices Area Calculation:

Controlled Drainage & Catch Crops & Spring Tillage

Cropping Sequence 1: (24 ha, three yeared)

1. Starch potatoes
2. Barley
3. Winter wheat + Catch Crop + Spring Tillage $24/3=8$ ha

Cropping Sequence 2: (16 ha, three yeared)

1. Barley + Spring Tillage $16/3=5.3$ ha
2. Barley
3. Winter wheat + Catch Crop + Spring Tillage $16/3= 5.3$ ha

Total Area:

Spring Tillage: 5.3 ha

Catch Crop + Spring Tillage: 13.3ha

Controlled Drainage Area

Controlled Drainage is implemented on 60% of farm area (40 ha): 24 ha

Calculations for Reduced Nitrogen Leaching -due to Controlled Drainage, Catch Crop & Spring Tillage

Controlled Drainage:	24 ha * 25 kgN/ha(*)	600 kgN
Spring tillage:	5.3 ha * 10 kgN/ha(*)	53 kgN
Catch Crop:	13.3 ha * 25 kgN/ha(*)	332 kgN

Total Reduced Leaching	24.6 kgN/ha * Farm Area 40 ha	985 kgN

Environmental and Farmer Benefit

- 24.6 kgN/ha (*) as environmental benefit
- 12 kgN/ha as farmer benefit(**) (~10% less adding fertilizer to get same financial revenue)
- Weather independence as a farmer bonus (not specified here)

(*) Based on results from trials outside Ragnabo Farm

(**) Vague estimate based on farm economical result and farmers personal eye, no statistical significance and lack of independent trials as only one observation over time

Calculations of Nutrient Balance and Nitrogen Leaching

- year 2012

Nutrient Balance

- shows the effectiveness in crop production

Ragnabo Farm:	Surplus 36 kgN/ha
Comparable farm:	Surplus 77 kgN/ha

Nitrogen Leaching

- shows leaching to downstream waters

Ragnabo Farm:	32 kgN/ha
Comparable farm:	44 kgN/ha

CDI Reduces Leaching

