



# 10 YEARS MANAGEMENT OF ON FARM DAIRY PASTURE PROJECTS: REVIEW OF METHODOLOGY AND RESULTS

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# Projects

## ■ FILL Pasture Project: 2003-2005 & 2006- 2008 “Improve pasture & dairy production”

■ 4 pilot farms

■ National (multi actor: Uni Bonn- herd book- book accounting)



## ■ Dairyman: 2010-2013; EU Interreg IVB: “Sustainable dairy production”

■ NWE: 7 countries, 10 regions (B, D, F, IR, NI, L, NL)

■ Network of 130 pilot farms (Lux. 6 farms; 3 pasture farms)



## ■ Autograssmilk: 2014- 2015; EU P7 “Combine AMS & pasture”

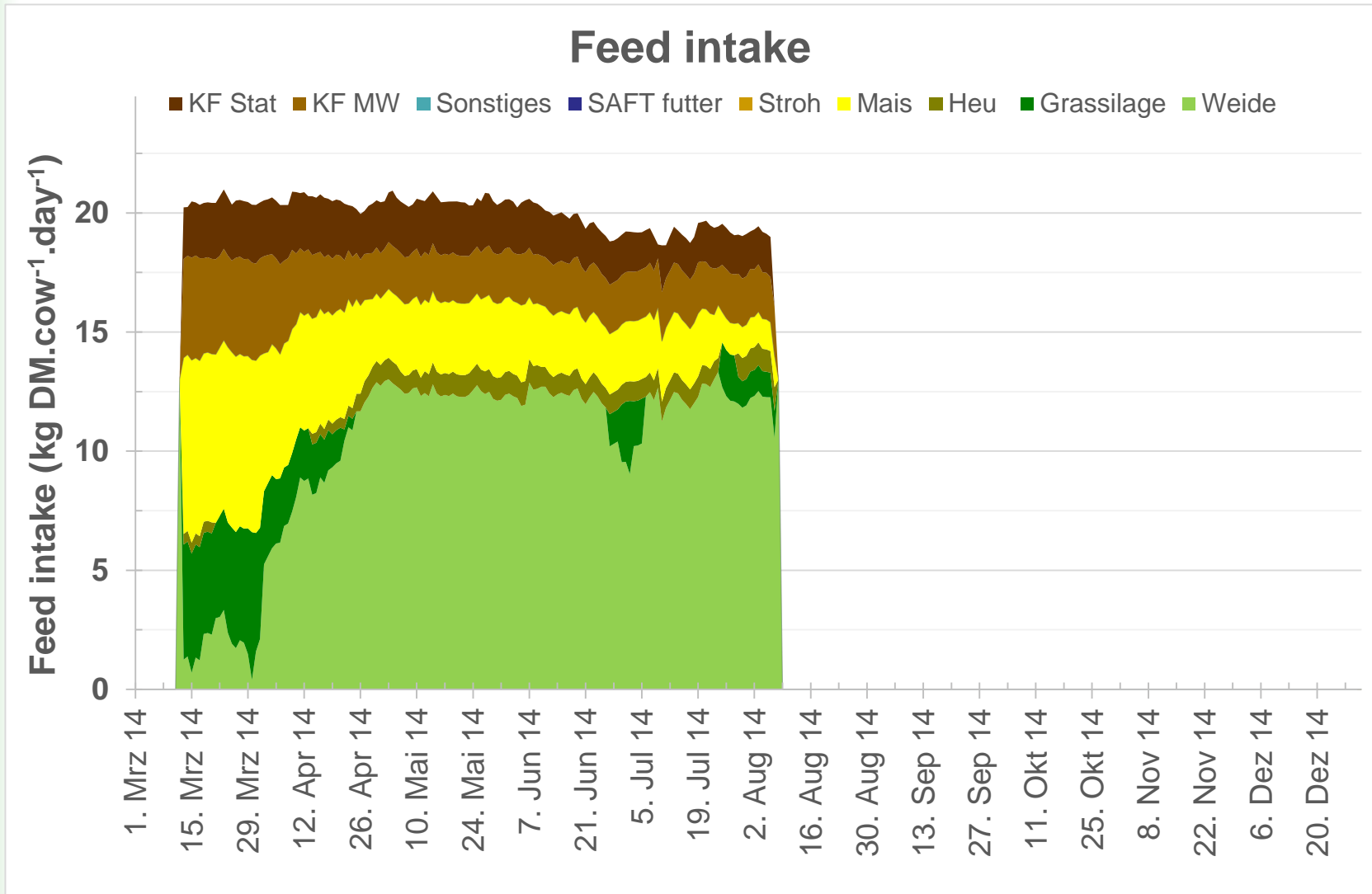
■ 6 countries (B, DK, F, I, NL, S, L coop since 2014)

■ 37 monitor & experimental farms (LUX: 4)



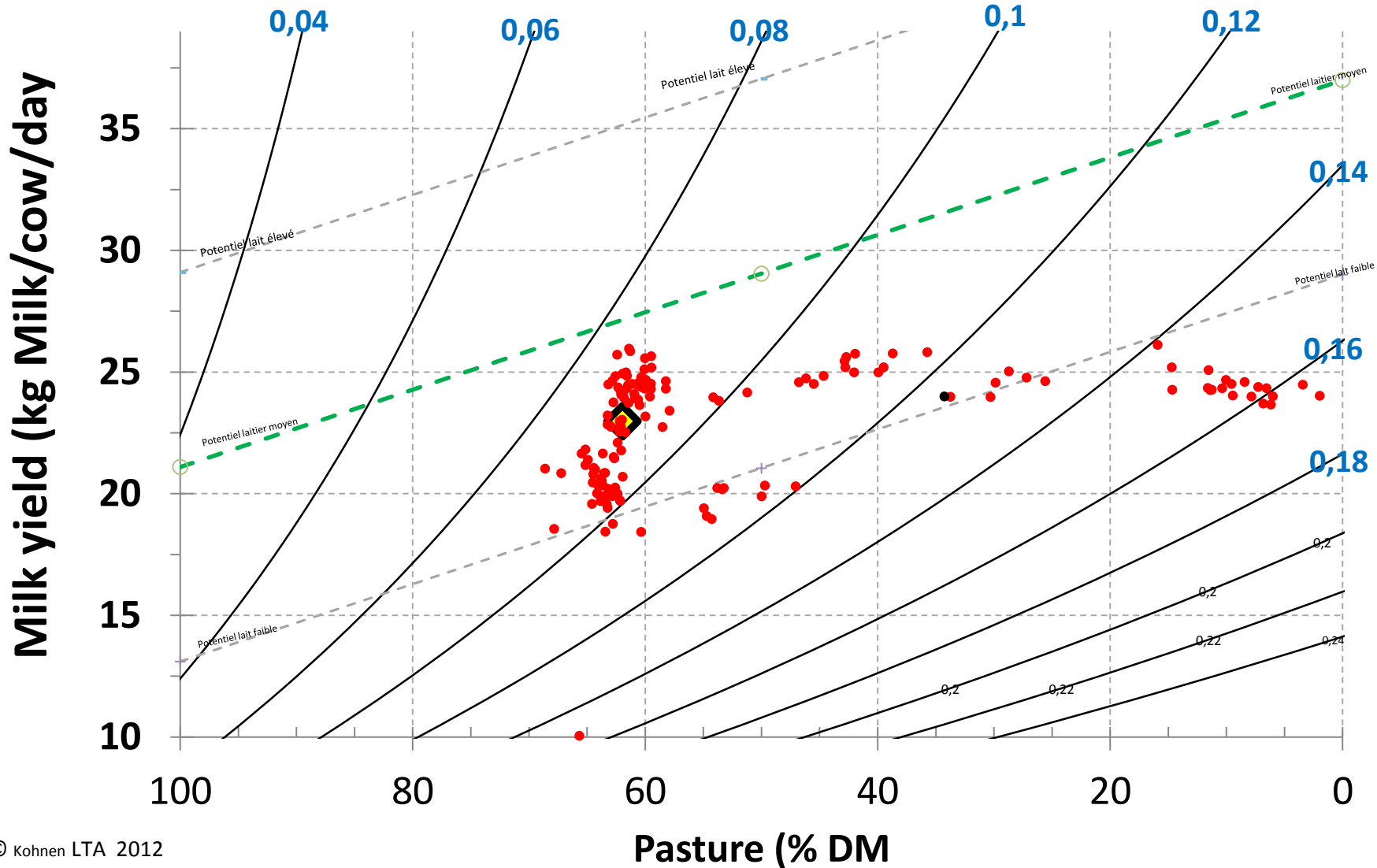
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# Feed and pasture calendar and 4 explicative graphs



# Feed & pasture calendar: Feed cost simulation

Pasture cost: 0,05 €/kg DM  
Feed cost: 0,22 €/kg DM



# Pasture management

## 2003- 2006: Pasture management by guidelines:

- Graze early in spring!
- Graze tight with low pregrazing high!
- Reduce supplementary feeding!

→ Grass silage → Maize silage → Concentrates

## 2006: Pasture management with weekly farm walk

- Estimate available pasture
- 2006- 2008: „Pasture days ahead“ (F)
- 2008- : Feed wedge (NZ)

# Estimate available pasture: Weekly pasture walk with



- ▀ Grassmaster (2003-04):
  - ▀ Electric impedance
- ▀ Herbomètre (F) &
- ▀ Rising Plate Meter (NZ)  
2005- 2010
  - ▀ Compressed grass  
high





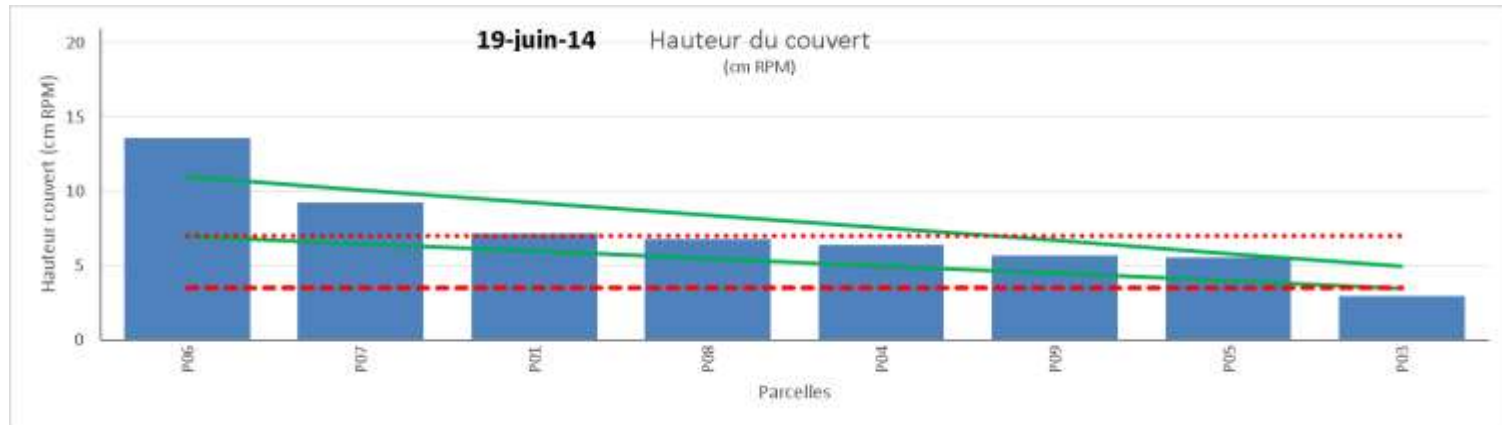
# Estimate available pasture: “Weekly pasture drive”

Feedreader

Quad & Ultrasonic sensor



# Evaluate available pasture: Feed wedge



**Recorded data must be transposed into understandable figures**

Problems:

- In time with measurements
- No autonomous weekly pasture walk (no measurements and data handling by farmers)
- Impact on farmers decision not evident (simple guidelines are well accepted)

**Improve tools –**

**improve knowledge transfer– improve knowhow**

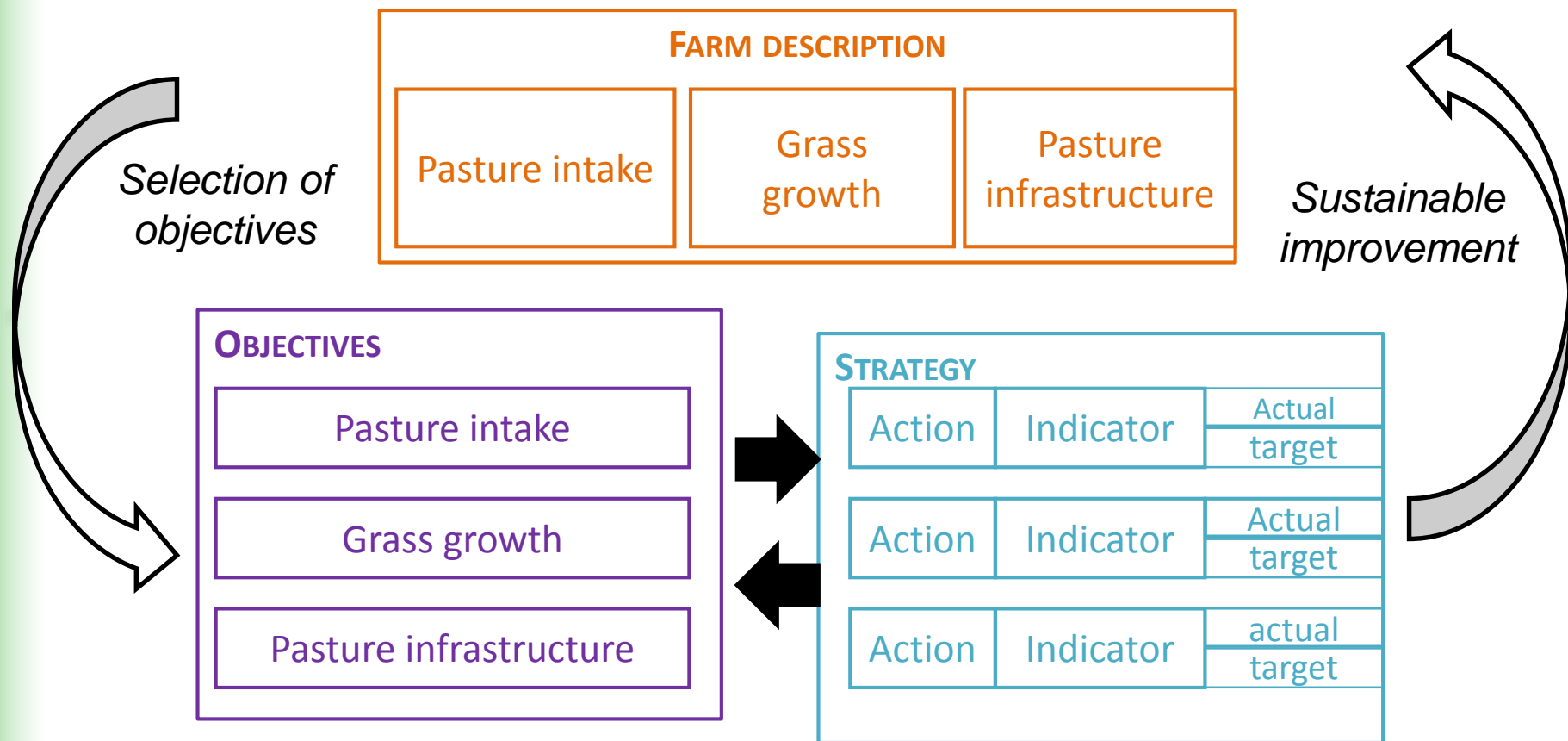


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# Farm development plan:

- Farm specific
- Objective driven – Strategy - Indicators



# Final Evaluation

	F&P	GM	HM	RPM	FR	FW	FDP
Time consuming	++	-	-	-	-	+	-
Spec. Knowledge (technical realisation)	++	+	+	+	++	--	---
Spec. Knowledge (data interpretation)	-	--	--	--	--	--	---
Accuracy	++	+	+	+	-	++	++
Acceptance (with technical help)	++	+	+	+	++	++	++
Acceptance (autonomous)	-	---	---	---	---	---	---

# Conclusions

- Pilot farm networks are very appropriate for implementing innovating ideas
  - Exchange platform & knowledge transfer (research- advisory- farming praxis- education)
- Multi actor network:
  - More actors → more time needed for agreement (“slower”)
  - More actors → higher implementation of the results
- Proposed scientific tools not always in accordance with farmers demands and skills (“visual, intuitive” ↔ “scientific model”)
  - Time consuming to collecting data
  - specific knowledge to interpret data
  - Farmers have an intuitive understanding of complicated farm process

# Pilot farm network: Analyse dairy production systems

## ▀ Analyse dairy production systems

- ▀ Explicative data analysis
- ▀ Criteria for success pasture based- indoor- mixed system

## ▀ Settings

- ▀ Great number of divers pilot farms & regions (countries)
- ▀ All farming systems (not only grazing)
- ▀ Homogenous data recording and treatment

## ▀ Create a European reference network

- ▀ Smaller networks can refer to!
- ▀ Great help for small countries with divers pedo- climatic conditions



