Estonia: decrease of broadcast spreading due to joint work

SuMaNu

Kalvi Tamm
Estonian Crop Research Institute (ECRI)
Agrotechnology department

2021

EU STRATEGY FOR THE BALTIC SEA REGION FLAGSHIP
Interreg Baltic Sea Region
SuMaNu
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Current situation in Estonia

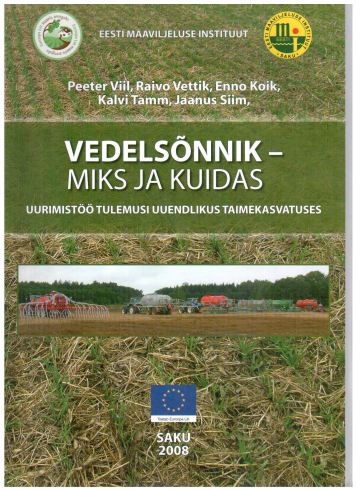
Usage of different slurry spreading technologies, percentage from whole amount of animal slurry in surveyed Estonian farms

Technology	Pictogram	2016, by EPKK	2020, by EULS
Broadcast spreading		5%	2,5%
Trail hose spreading		35%	17%
Incorporation spreading		60%	40%
Stripe-incorporation spreading			6%
Open-slot injection			23,5%
Closed-slot injection			11%

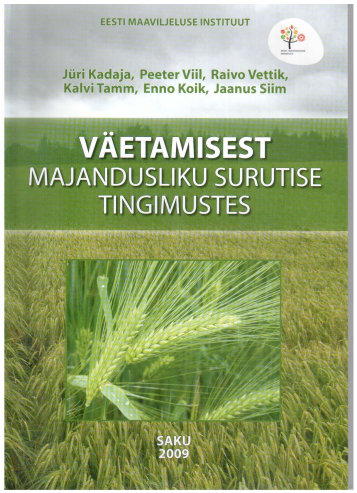
Interreg Baltic Sea Region
SuMaNu
EUROPEAN REGIONAL DEVELOPMENT FUND
EUROPEAN UNION

Rising the awareness

Annual Technology Days and publications to introduce effect of different slurry spreading technologies to the farmers.



Slurry – why and how: research results in innovative plant cultivation, 2008



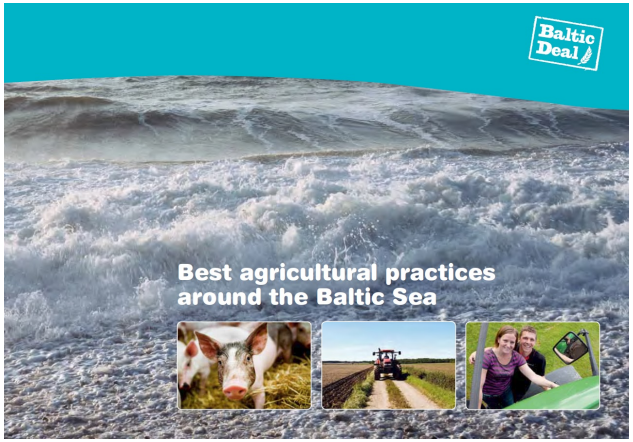
Fertilising in condition of economic depressioon, 2009

Slurry and tillage, 2012

Fertiliser handling fechnologies and machines, 2013

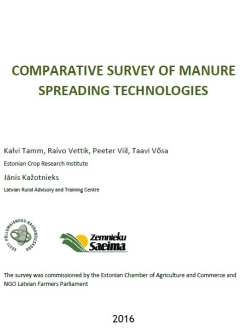
Interreg Baltic Sea Region
SuMaNu
EUROPEAN REGIONAL DEVELOPMENT FUND
EUROPEAN UNION

Introducing the results of different knowledge transfer and research projects



Baltic Deal (Baltic Sea Regional Programme) 2010-2013

Baltic Manure (Baltic Sea Regional Programme) 2010-2013



GreenAgri (Interreg Central Baltic) 2015-2019

Baltic Slurry Acidification (Interreg Baltic Sea Region) 2016-2019

Interreg Baltic Sea Region
SuMaNu

EUROPEAN REGIONAL DEVELOPMENT FUND
EUROPEAN UNION

Improved ability to afford the technology

- Growing is the average size of Estonian farms and thus their ability to buy expensive tractors and slurry spreaders.
- 40% support to invest to the farm machinery.
- Injection and incorporations spreaders get extra points in funding evaluations.
- Smaller farms can order the slurry injection or incorporation spreading from service providers.

Interreg Baltic Sea Region
SuMaNu
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Farmer's calculations,

why to prefer slurry injection or incorporation spreading

- Fastest way to incorporate is to make it during slurry application - it helps to minimise loss of N and need for mineral N.
- This is also good for environment (less polluted air) and neighbours (less odour). Today farmers care about it.
- Combining of two operations - slurry spreading and slurry incorporation – helps to win time and costs. Only one tractor and operator required, not two tractors and operators.
- Important because slurry is usually applied in busy times –
  - if seedbed preparation and sowing should be made in spring or
  - during harvest of crops and prepearing land for winter crops in summer and autumn.
- Incorparation spreader is good tool to make stubble tillage after harvest - it mixes soil and crop residues with slurry
- Eveness of slurry spreading is lower by brodcast spreading and better with other spreaders

Interreg Baltic Sea Region
SuMaNu
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Restrictions in Estonia

- The use of brodcast spreading for slurry is restricted between 20. September and 20. March.
- The use of other slurry spreading technologies are restricted between 01. November and 20. March.

Interreg Baltic Sea Region
SuMaNu
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND

Thank you!

Kalvi Tamm
Estonian Crop Research Institute
Agrotechnology department

kalvi.tamm@etki.ee

Interreg Baltic Sea Region
SuMaNu
EUROPEAN UNION
EUROPEAN REGIONAL DEVELOPMENT FUND