



Inno4Grass

stimulerar vallinnovationer

01.01.2017–31.12.2019
Horizon 2020

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The Inno4Grass Project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No. 101018166 



Inno4Grass

– mer innovationer för hållbar vallproduktion i Europa

Shared innovation space for sustainable productivity of grasslands in Europe

Nilla Nilsdotter-Linde Anna Carlsson

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Tematiskt nätverk i H2020



- Tyskland, Belgien, Frankrike, Irland, Italien, Nederländerna, Polen och Sverige
- 20 partners; lantbrukarorganisationer, rådgivningsföretag, utbildnings- och forskningsinstitutioner
- Partners i Sverige: SLU (*Nilla Nilsdotter-Linde*) + Svenska Vallföreningen (*Anna Carlsson*)
- Totalt 20 milj SEK på 3 år varav 1,7 milj SEK till Sverige

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Bakgrund



- Samarbetet lantbrukare - rådgivare - forskare kan bli bättre.
- De senaste forskningsresultaten blir inte tillräckligt tillämpade i praktiken eller slår igenom sent hos lantbrukarna.
- Informationen om smarta lösningar som introducerats på gårdsnivå sprids inte effektivt.

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Mål



- att överbrygga klyftan mellan forskning och praktik för bättre tillämpning av innovativa system i vallodlingen
- att öka lönsamheten för europeiska vallodlare och samtidigt bevara miljövärderna
- att sprida innovationer och möjliga bidrag från vallen för en lönsam och hållbar mjölk-, nötkreaturs- och fårproduktion i Europa

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Förväntade resultat



Projektet kommer att bidra till spridning av befintlig vetenskaplig och praktisk kunskap inom vallområdet samt stimulera utbyten mellan regioner och länder genom att:

- Fånga upp nyheter från innovativa gårdar granskade i totalt 85 **fallstudier** från alla länder (10 i Sverige)
- Genomföra **intervjuer** av 20 innovativa lantbrukare i Sverige + rådgivare etc. (+ 150 i andra länder)
- Arrangera fysiska och digitala **möten** mellan forskning och praktik
- **Enkätundersökning** - identifiera kunskapsbehov samt drivkrafter och hinder för innovationer

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Informationsmaterial - SE

- Innovationsbeskrivningar (10 intervjuer + 10 mer omfattande fallstudier)
- Faktablad från möten (13)
- Videos (13)
- Broschyrer
- Undervisningsmaterial om vall och bete i Sverige och Europa

www.inno4grass.eu

Enkelt fällsystem förbättrar ungdjursbetet
Anna och Anders Carlsson, Skogsgård

1. Detta är innovationen

Fyra fjällor förbättrar beteets kvalitet och ungdomens tillväxt

På Skogsgård är betesytan väl utvecklad. Med fjällorna betar ett välfärdigt fjällsystem med mycket stor avkastning och bra kvalitet. Till exempel kan man lägga ihop betesfält och betesmarker som varit som åker kunde ge bra kvalitet och kvantitet.

1. Slåp halva slängsystemet markerat fölgt den i april komplettera med kväve och fosfor för att förbättra kvaliteten på betet.
2. Slåp resten av fjällen på "snagi" dagar när fjällen betar lika mycket som betet sköts.
3. Fylla runt fjällen varje vecka mellan fyra fjällor.
4. Ta bort halva fjällen ca 15/10. Den kan nu växa upp på exempelvis sparrisfält eller klöverfält, viltmarker eller höstgräs/åkermark. Åker eller höstgräs.

Man kan jämföra med ett standardsystem med betesdjur 15/10 och betesfält 15/10. Det fjällsystemet kan ge 50% fler djur på samma areal och en dubbel tillväxt för fjällen. Det fjällsystemet kan ge 50% fler djur på samma areal och en dubbel tillväxt för fjällen. Det fjällsystemet kan ge 50% fler djur på samma areal och en dubbel tillväxt för fjällen. Det fjällsystemet kan ge 50% fler djur på samma areal och en dubbel tillväxt för fjällen.

Starkt intresse för bete gav ett ekonomiskt och hållbart system

Den här varieteten på fjällor visar avkastning och kvalitet på betet med mindre jobb med att fylla fjällen. Transpandor används också genom att ha flera alternativa fjällor att välja mellan. När tillväxten på fjällen "exploderar" behövs man bara ett betesfält eller komplettera med slätt.

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10 case studies - SE

Innovation	Farmers name	Location
1 Intensive forage harvesting system more profitable: 'Three cuts gave better forage quality and better returns'	Henrik Wahlberg and Viktoria Luttu Wahlberg	Soukolajärvi, Övertorneå
2 Separated slurry and distribution pipeline – better spreading in organic agriculture	Alfred Olofsson	Ersmarksängarna, Ersmark
3 Handy Excel spreadsheet for forage inventory, consumption and production	Lasse Larsson	Jon-Jons Lantbruk, Bollnäs
4 Minimal losses in bunker silage production	Örjan Bergman	Ekenäs, Flen
5 Grazing – valuable for more milk and less costs	Per Larsson	Kårtorp, Tibro
6 Maximum grassland use by controlled calving	Martin Johansson	Köinge, Ullared
7 Monitoring the amount and quality of silage in tower silos	Thomas, Christer and Bernt Bengtsson	Valinge, Varberg
8 Simple system for better rotational grazing for heifers and young steers	Anna & Anders Carlsson	Skogsgård, Getinge
9 Irrigation and slurry are important resources in dry areas	Anita, Rune och Martin Hägg	Siglavjs, Stånga
10 Selling ice-cream adds value to farm-produced milk	Per Brunberg	Björketorp, Johannishus

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10 case studies - SE



Creation and monitoring of case studies

Minimal losses in bunker silage production



Farm: Ekenås
Location: SÖDERMANLAND, SWEDEN

Image © Photos: Staff Sjöstrand, 2018

Background

Ekenås Farm and meadow is located south of Stockholm in Sweden. It is a 400 ha organic farm with 200 dairy cows that is the backbone of Clever and Lily Lemn's Foundation, which supports science within nature conservation with special emphasis on soil, water, plant protection and landscape. The farm is commercially operated, delivering the profits to the Foundation. However, the manager often welcomes demonstration trials and other activities using the farm as a model. The farm is also frequently used for scientific meetings supported by the Foundation.

The dairy farm delivers organic milk certified by IFAV. The old barn housing 60 dairy cows was replaced in 2012 with a brand new loose housing system for the dairy cows and for 180 young stock. All feeds are produced on the farm and the animals are fed a total mixed ration (TMR). In the period 2012-2014, Ekenås Farm was one of 13 farms selected for a project aimed at studying the dry matter losses in silage making accounting at farm level in Swedish silage production. Research at the Swedish University of Agricultural Sciences (SUV) is undertaken with dry matter (DM) losses occur, and hopefully find actions to reduce the losses, had found that Ekenås Farm had less losses than other farms using bunker silos. The measurements were repeated to ensure that there were no errors in measuring and to analyse the management regime applied on Ekenås Farm during ensiling.



Creation

Detailed description

Swedish farms are growing rapidly in total pig milk produced. The silage per farm in 2000 to around 90 cow-bunker silos. With the rapid increase contractor to harvest the forage. A tractor with wagon is common and front of the silo, which is filled in a cooling prime silo, since ensiling is all. The management system at Ekenås is chopper mounted on. This means it while the tractor is transporting the of the silo. During the time when the another tractor is continuously pack compacted sand as a floor before its high. When the silo is filled in the silo with plastic sheeting, which is to open until the next morning. When wagon makes the first trip to the already present in the silo, for at its larger has entered and is easily comp. public. The farm uses only one layer layer of fine sand over the complete Ekenås Farm is organic and uses no consumption to provide all 200 cows it has bunker silos with very modern the farm has more silos, but the sil. This in turn means that the silo is management system for feeding ou



On

method to minimise losses. An ending up on the floor and drain

Results

This management system near study run by SUV. On average, 1 while the three silos at Ekenås) ending the wet of losses on the one factor had significant, and raised according to filling speed Figure 1 were obtained.



Figure 1. Dry matter (DM) losses a part to end of filling, including sig

The three silos at Ekenås Farm bottom left-hand corner of Fig losses in the project at SUV was lead to similar silage quality microbes such as yeast which silo, resulting in large DM loss six, gave higher total DM loss



Creation and monitoring of case studies

lowest in the system on Ekenås farm, which had outstanding results. Despite low filling speed, with extended compaction, sand covering and low silo width, Silage DM losses on Ekenås Farm were 10 percentage units lower than on the average Swedish farm.

Adoption criteria

The 'filling speed' has become a new concept in silage management planning. Farms with very large and wide silos, and which employ entrepreneurs with high capacity for filling these silos, have found a way to adapt. Instead of filling and finishing one silo at a time, they fill two silos simultaneously. This requires two compaction tractors, but overall it takes the same time for the contractor to deliver the forage to the two silos. However, the filling speed of each silo is halved, ensuring compaction to a much higher degree. It also results in more silage DM in each silo, due to higher density. Most important, though, it gives a more stable silage during feed-out, with less heating problems and lower losses.

Future prospects

The importance of covering the bunker silos with a heavy material such as sand was not fully investigated. This should be done and, if it turns out that covering with sand is a superior method, a technical, labour-saving method for spreading and removing the sand needs to be developed.

References

Sjöstrand, K. 2018. Dry matter losses from different silo structures. Swedish University of Agriculture Sciences, Department of Animal Nutrition and Management. Proceedings of the 9th Nordic Feed Science Conference, Loppa, Sweden, report 286, 175-176.

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Beslutsstöd

Identifiera, utveckla och sprida olika metoder och rådgivningsverktyg t.ex.

- Betesrådgivning – www.agrinet.ie
- Skördetidsprognos – www.vallprognos.se
- Betesplatta
- Bestämning av ts-avkastning på vall och bete
-



Vallprognos 2018



Flera förväntade resultat



- Utarbeta förslag till **utbytesprogram** inom vallområdet – lantbrukare, rådgivare, forskare
- Utveckla behovsstyrda **forskningsprogram** – t.ex. tillsammans med Fältforsk!
- Introducera **vallmästartävlingar** i alla de åtta länderna – Sverige en förebild

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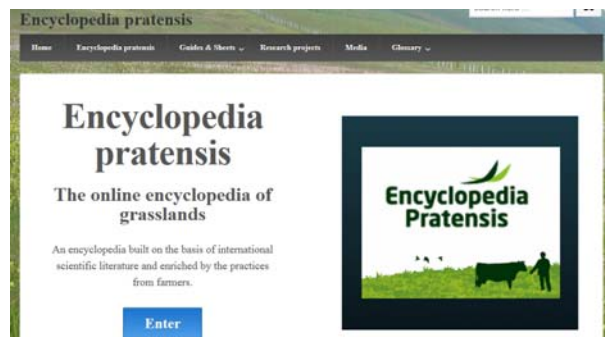
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Encyclopedia pratensis



- Mata nationella och europeiska Wikimedia samt databasen "*Encyclopedia Pratensis*" så det blir tillgängligt för alla
- www.encyclopediapratenis.eu



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Konferensdatabas



- Databas som samlar s.k. "grå litteratur" som normalt inte hittas i t.ex. Web of Science eller Google Scholar
- Uppsatser från nationella och europeiska vallkonferenser - nyckelord, kategorisering och kort sammanfattning (huvudbudskap och möjlig innovation)
- Exempel: Vallkonferens 2017...
- www.grassland.uni-goettingen.de/index.php

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Konferensdatabas - vall



GRASS COPS

Grassland conference paper search

In this database we store information on papers from different grassland conference proceedings from all over Europe. All papers are keyworded, categorised and shortly summarised (core message and take home message for practitioners).

Use the search form to search for **grey literature** in the fields of grassland and forage production!

PS. If you are an author and you do not fully agree with our summary and keywords, then just send us a [message](#) and we will correct the database entry.

Text search

Search term 1:

All fields Title Keywords Author Core message Take home message for practitioners

Search term 2:

All fields Title Keywords Author Core message Take home message for practitioners

Category search

If several criteria are chosen, only papers are selected which fulfill all selection criteria. Choose your selection criteria and **press one of the search buttons above**.

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EGF-EUCARPIA Joint Symposium 2019
Zürich
24-27 juni 2019 

Valkonferens 2020
Uppsala
4-5 februari 2020 

28th General Meeting of European Grassland Federation
Helsingfors
22-25 juni 2020 

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