

Bienvenue  
Wellcome  
Velkommen  
Willkommen  
Välkommen

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# What's next

- Who does what?
  - Legal
  - Research
  - Economy
  - Politics
- Next meeting?
- Arranged by.....?
- Participants .....?
- Action plan !
- Are we the right group of people?
- Who is missing?
- Who pays?

# Eskil presentation

- Private independent consultant/advisor since 1997
- Previous official advisor/officer
- Tasks:
  - Plant production
  - EU beareaucrazy for farmers
- Speciality
  - Safe use of pesticides
  - Application technique
  - Drift reduction
- Train:
  - Farmers
  - Advisors, sales people
  - Authoroties
  - Sprayer inspectors
  - Politicians
- Farmer

# EUROPE



# Sweden

- Ca 9 000 000 people (aug 2004)
- About 1500 km long
- 3 000 000 hectar arable land
- 30 000 full time farmers / 80 000
- Ca 19 000 boom-sprayers ? 250 orchard-sprayers
- > 40 000 persons trained for pestidcide use
- 1800 ton a.i. PPP
- Ca 1 kg a.i. /ha on sprayed area





# SKÅNE

- 300 000 ha arable land
- Average yield:
  - Wheat 8 ton
  - Barley 5,5 ton
  - Sugar beets 8 – 9 ton sugar ha
- Ca 50 % of used PPP
- Use per ha = Denmark



# Malmö

- Ca 250 000 people
- Close to the Continent
- Expanding – not without problems
- 35 % immigrants
- History
  - Trade city – part of the Hansa
  - Industry city
  - .....

# "If you have seen Malmö you have seen The World"

- We had the biggest crane in the world
- We have the highest building in Sweden
- Zlatan Ibrahimovitz
- We do the biggest mistakes
  - Airport
  - Town hall
  - Library
  - SAAB – factory
  - The Triangle – shopping centre
  - Bridge to Denmark
  - City Tunnel
  - Scandinavian Tower
  - Turning Torso
  - .....

# The Biobed Story

- Crossing of roads
- Timing

# The Biobed Story

## Part 1

- 1991: Second Swedish Pesticide Program
  - New 50 % reduction of use
  - Eliminate risks with pesticide use
- "Scanian Advises"
  - Authorities
  - PPP-Industry
  - Farmers Federation aiming for "The Worlds Cleanest Agriculture"

# The Biobed Story

## Part 1

- Scanian Advise
  - Fill in field or on top soil near farm center
  - On manure place
  - Dig a hole and put in top soil

Do what is practical for you!

- Don't fill on farm yard



# The Biobed Story

## Part 2

- 1992 Started Odling i Balans  
"Cultivate in Balance"
- Had contact with advisors and SLU
- Build the first Biobed

# The Biobed Story

## Part 3

- SLU
  - Research on degradation in straw etc since 1990
- Lennart Torstensson
- Maria Del Pilar Castillo

# How to build



# Biobed

- A piece of the field....
- Instead of filling on farmyard!!
- Deep 60 cm
- Sealed in bottom?
  - Clay
  - Foil
  - concrete

# The Biobed

- A reasonable practical way to solve a problem
- Research results very positive
- Big improvements in short time
- No legal problems in beginning
- Easy to get acceptance for "marketing"
- Not easy to get farmers to build



Biobed - safe place

# Biobed

- High microbial activity
  - collects/ retains / degrades pesticides
- Most of what has been used can be found, sometimes in high doses
- Mainpart degraded before next spraying season
- Lasts 5 - 8 years
- Mixture can be spread in field after compost with no residues
- Not hazardous waste

- Studies on degradation and transport in the mixture
- No studies on water leaving the biobed

# Misunderstandings

- All organic material is good!
  - Bed of onion peels
- Mix of:
  - Peat and cow manure
  - Peat and horse manure
- Mix component put in layers
- Dangerous for children and animals!
- Can collect and clean spray liquid and concentrated pesticides.
- It can't work because the grass is dead!
- Dead grass indicates you have wrong routines!
- It is a good place to wash machines from manure and fertilisers
- Bad placed was filled wit water

# The Biobed Story continued

- Promoted in courses for users
- 1997 new national regulations
  - Filling should be done on biological active soil with 30 m safety distance to water
  - Biobed and concrete plate with collecting tank regarded as "safe place" with reduced safety distance to water – 15 m

# The Biobed Story continued

- 1998
  - Start of "Safe Pesticide Use"
    - PPP industry
    - Farmers federation
    - National authorities
    - Information campaign
    - Meetings around country with local authorities and farmers
    - Information material
  - Biobed approved in IP
  - Alternative filling-place in national support system:  
"Sustainable Conventional Farming"
    - Size: larger than sprayer folded
    - Dead grass should be replaced
    - Add mixture material
  - Experiences
    - Cover during winter
    - Irrigate in dry summers



# The Biobed Story

- 1999
  - New contract for sugar beet growers
    - Courses for growers
    - "Safe place" was encouraged as alternative to protect water
- 2000
  - Sugar beet contract fully implemented
    - New recommendations for placing
    - Walls etc to protect drainage wells etc

# BIOBED For pesticides

\* Park

\* Fill and mix

\* Clean



Photo Eskil Nilsson

# Get the full picture



# The Biobed Story

- 2002 > 1000 Biobeds in use
  - Ca 15 % of farms (?)
- Probably needs service
  - Add mixture
  - Add grass
  - Change mixture
- 2003 Biobed should be larger
  - Research results indicates Biobed should have place also for tractor
  - Splashings from external cleaning
  - Opened packages outside Biobed



# Secure your plant protection and your future

Protect water – Point sources are most important

Risk for  
spillage !  
Opened  
packages  
outside biobed!



Traces of  
spillage !  
Dead grass on  
biobed!



# Biobed

## Recommendation 2004

- Mixture
  - 50 % (volume) chopped straw
  - 25 % top soil, no clay
  - 25 % peat
  - Grass for humid regulation
- Size:
  - Length: sprayer + tractor + > 1m
  - Width: sprayer + 2 m

# Biobed

- Not a dump site for chemicals
- A parking place for cleaned equipment
- Suitable for some cleaning

Nilsson Sweden

6 x 4 m



Photo Eskil Nilsson

# Trakai, Lithuania





Persson Sweden

6 x 3,5 m



Photo Eskil Nilsson



Larsson Sweden

3 x 3,5 m



# Nordmark Sweden

6 x 3,5 m



Photo Eskil Nilsson



# Jonava, Lithuania



Photo Eskil Nilsson



# Gutmanski Poland

## 4 x 8 m



Photo Eskil Nilsson

# Poland



Photo Eskil Nilsson



Isgren Sweden

3 x 3,5 m

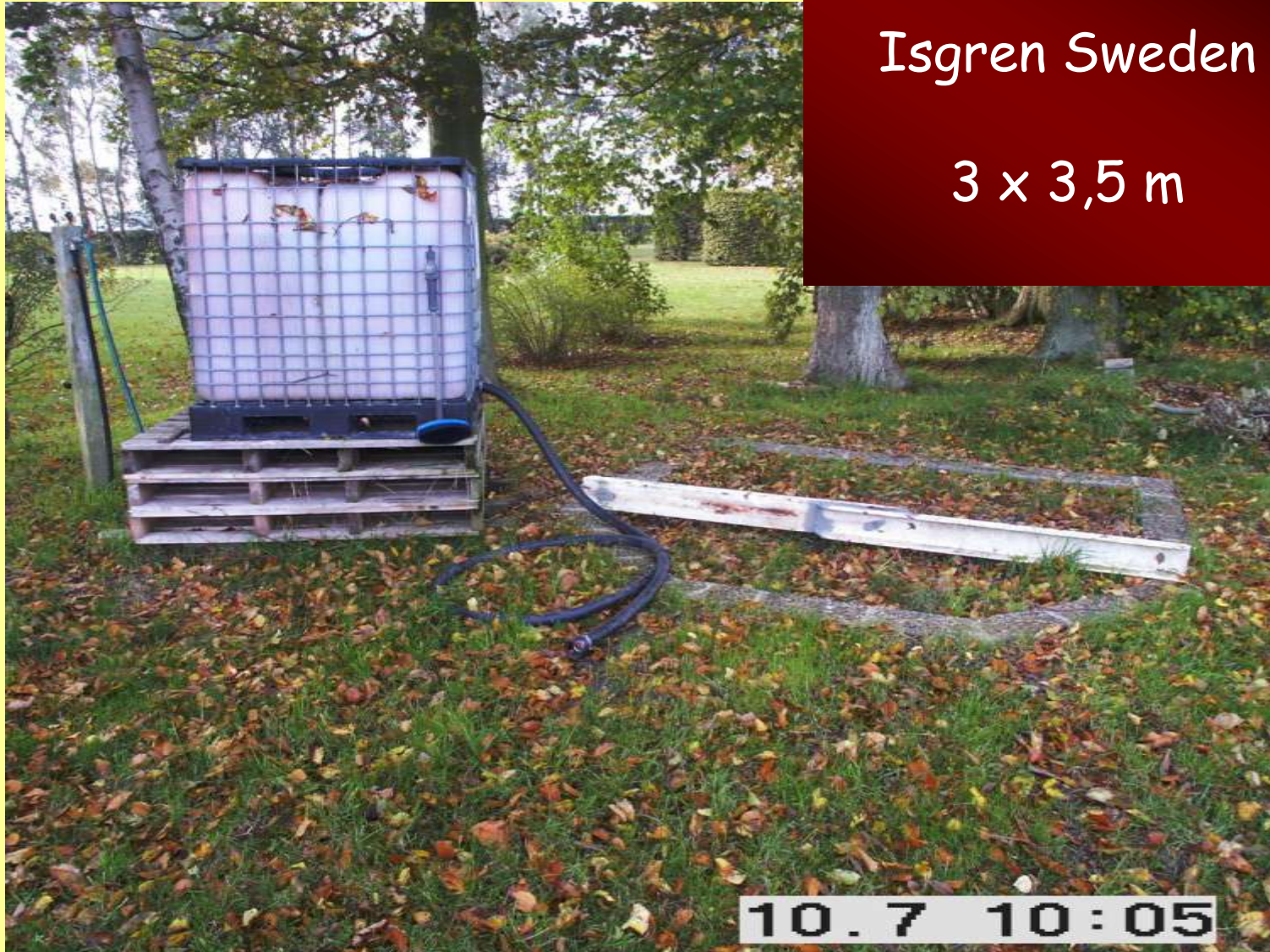


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