

A large number of bees are swarming on a wooden surface, likely a beehive entrance. The bees are densely packed in some areas, particularly on a blue textured surface that appears to be a landing board or a similar structure. The wooden surface is light brown and shows signs of wear. The background is dark, and there are some green leaves visible on the left side of the frame.

# **Colony Losses in Germany: Report and Lessons learned**

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MATERIAL NO. 38A24-1533  
F1761N831876  
LOT NO. 931876  
MP  
293 g.  
80.000  
THIRAM  
PONDICHERY DISTRICT  
MA XIM XL  
**PONCHO PRO**  
**MESUROL**  
100% MESUROL  
100% MESUROL  
100% MESUROL

38A24-1533  
831876  
N831876  
PR38A24 38A24-1533  
BATCH 831876  
F1761N831876

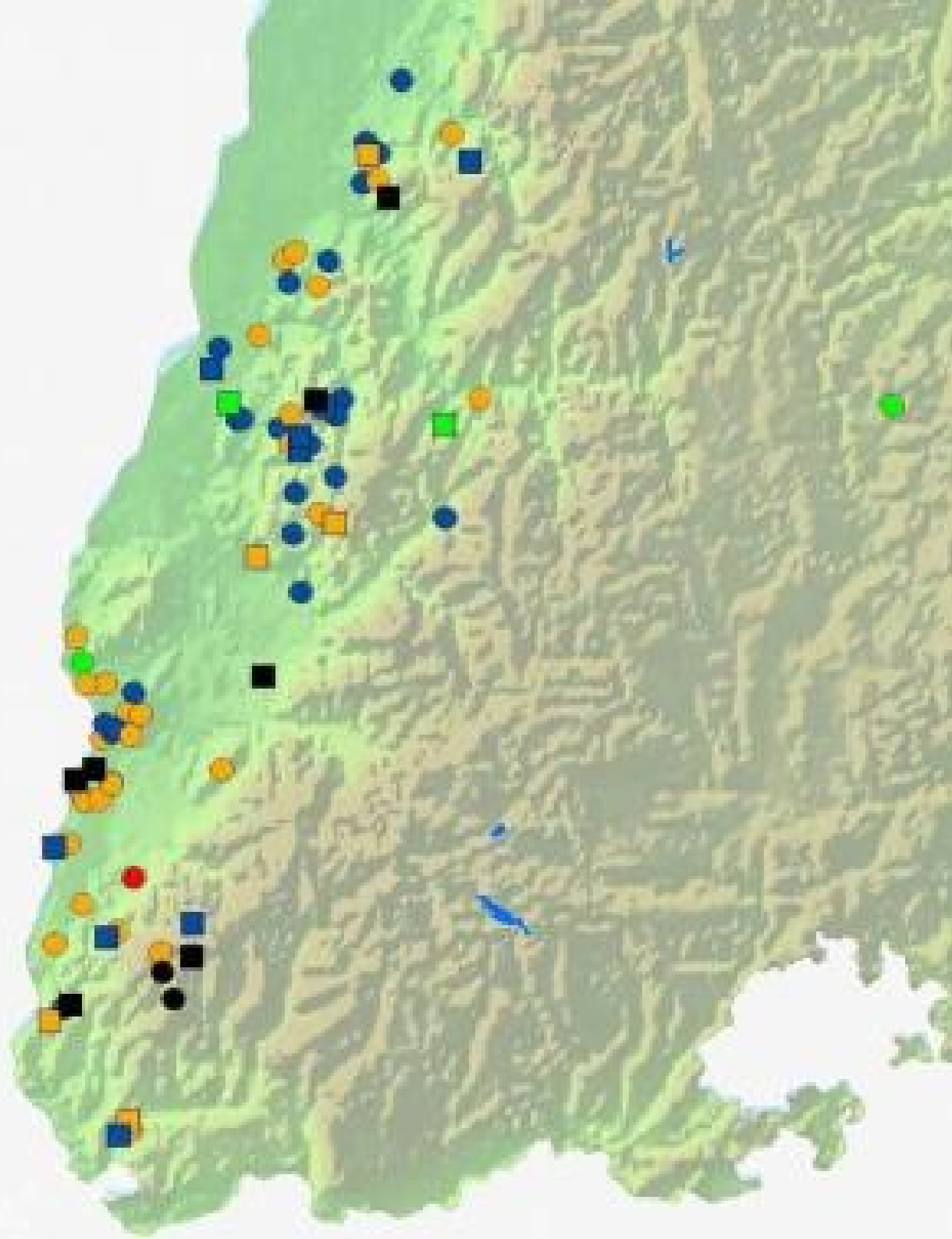








# Origin of samples related to colony losses in the Upper Rhine Valley

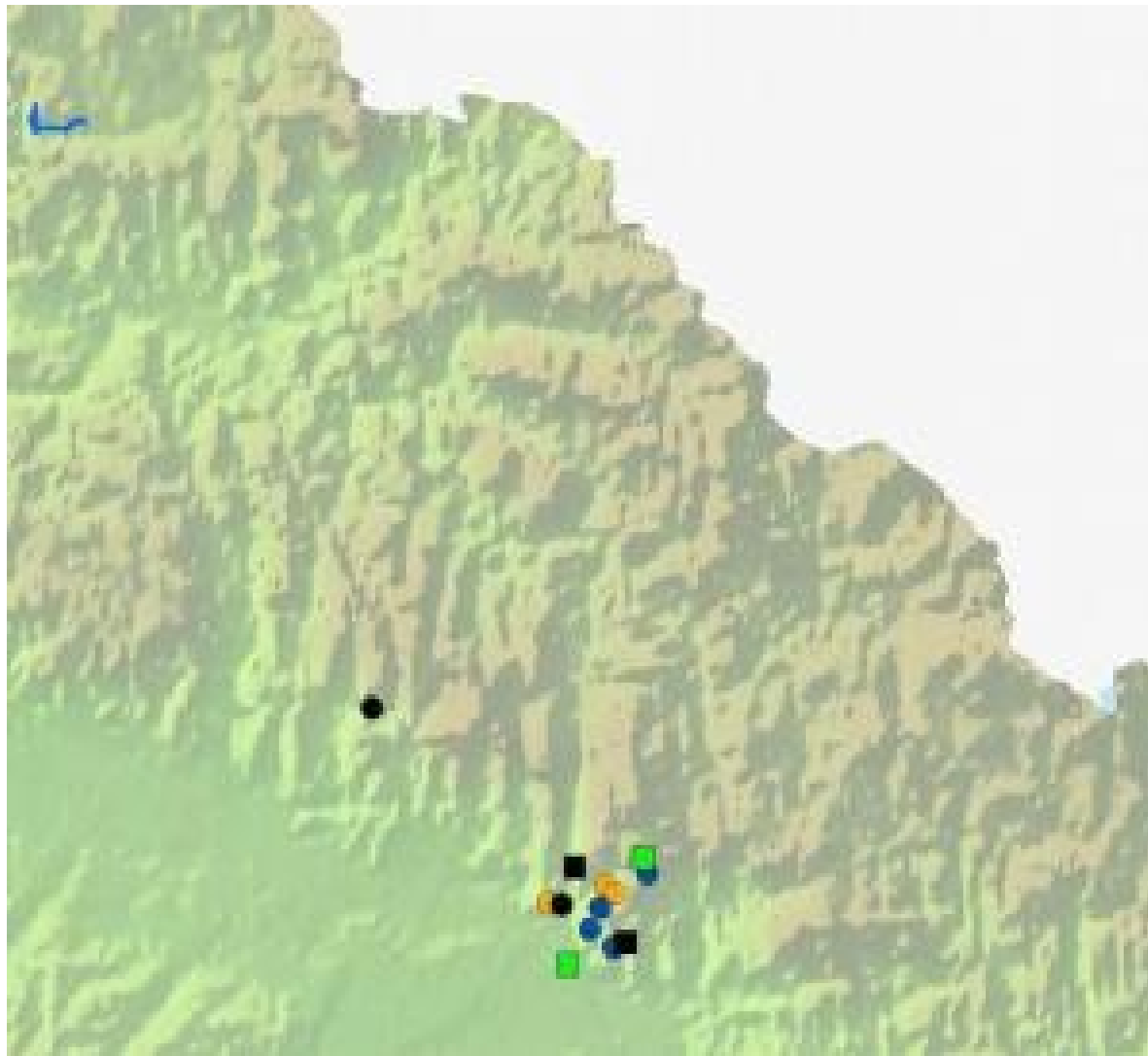


Ergebnisse der Einsendungen Baden-Württemberg 2008: Verdacht "Maisschaden", Stand 5.6.2008

## Legende zu Abbildungen:

rundes Symbol: Bienenprobe  
eckiges Symbol: Pflanzenprobe  
grün: Kein Nachweis  
schwarz: < 2 Mikrogramm Clothianidin/kg  
Bienen blau: 2 - 10 Mikrogramm/kg  
gelb: 10 - 100 Mikrogramm/kg  
rot: mehr als 100 Mikrogramm/kg

# Origin of samples related to colony losses in Bavaria



Ergebnisse der Einsendungen Bayern  
2008: Verdacht "Maisschaden", Stand  
5.6.2008

Abbildungen: Julius Kühn-Institut  
gramm/kg rot: mehr als 100 Mikrogramm/kg

# What did beekeepers learn from this incident?

## Phase 1: Denial

- Beekeepers observe colony losses during the seeding of maize and suspect the seed dressing Clothianidin produced by Bayer Crop Science and sold under the trade name Poncho.
- Government officials, industry experts and scientists deny any connection. Poncho has been thoroughly tested and approved
- Beekeepers later are able to document, that the problems with such seed treatments have been well known by government officials, industry experts and scientists for years. (ICPBR Conference in Bologna 2002)

# What did beekeepers learn from this incident?

## Phase 2: Damage control

- Government Agencies do everything to minimize the damage – not to beekeepers, but to Bayer.
- Local government takes over compensation payments to beekeepers. No admission of guilt by Bayer. Beekeepers pressured to sign full legal release form drafted by local government to protect Bayer from any further claims of damages.
- Beekeepers required to dispose of contaminated pollen frames in roadside containers. This conveniently eliminates evidence for future court cases.

What did beekeepers learn from this incident?

Phase 3: Admit only what you have to

- JKI confirms Clothianidin found in all samples of dead bees from the region.
- Beekeepers provide ample evidence of problems with the seed dressing. (Dust, “Smarties”, contaminated water puddles etc.)
- Problem officially blamed on “bad batch” due to poor quality seed dressing by certain subcontractors. Specific batches never identified. Specific vendor names never provided to beekeepers.
- Problem narrowed down to “dust” - other paths of contamination ignored.

What did beekeepers learn from this incident?  
Phase 4: Limited ban – don't question the system

- Mounting evidence combined with demonstrations and pressure from beekeepers results in suspension of approval for 8 seed dressings on May 15<sup>th</sup> 2008.
- One week later Clothianidin gets OK to be used again for rape seed because the dust hypothesis may not apply. Beekeepers protest because other paths of exposition are ignored in the decision.
- Official causes of the disaster: Bad application of seed dressing, bad design of the seeding equipment, bad practices of farmers. Not at fault: Bayer and the approval process.

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Safety testing does not systematically investigate  
all paths of exposition:

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- Official causes of the disaster: Bad application of seed dressing, bad design of the seeding equipment, bad practices of farmers. Not at fault: Bayer and the approval process. No explanation for AFSSA refusing to grant approval based on same data used by German authorities to justify their disastrous initial decision to approve.

What did beekeepers learn from this incident?  
Safety testing has to systematically investigate all  
paths of exposition:

- Industry claims seed dressings are safe for bees, because “bees don't forage 10 cm below the surface”.
- German beekeepers have documented 5 paths of exposition where bees come in contact the seed dressings:
  - Dust generated during the seeding process.
  - Seeds on the ground (“Smarties”) contaminate water puddles.
  - Seed gets washed out by heavy rain.
  - Seed dressing found in pollen and nectar of the plant.
  - Seed dressing found in high concentrations in guttation water of many plants.

# Guttation water on Strawberry plant



# What did beekeepers learn from this incident?

## Reforms are needed at many levels:

- Safety testing procedures are outdated. A honey bee colony is a superorganism and can't be represented by a cigar box full of individual bees.
- Pesticide use needs to be minimized across the board.
  - German authorities claimed the EU mandated the use of Poncho Pro as a quarantine measure against the Western corn root worm (*Diabrotica virgifera virgifera*) while in fact crop rotation was specifically listed as an acceptable option by the EU)
- Government agencies and publicly funded scientists need to be reminded that their duty is to protect the general public, the environment and beekeepers from harm – not multinational corporations from liability claims.

Support for beekeepers from publicly funded institutions has to be more than this:

