Risks to bees

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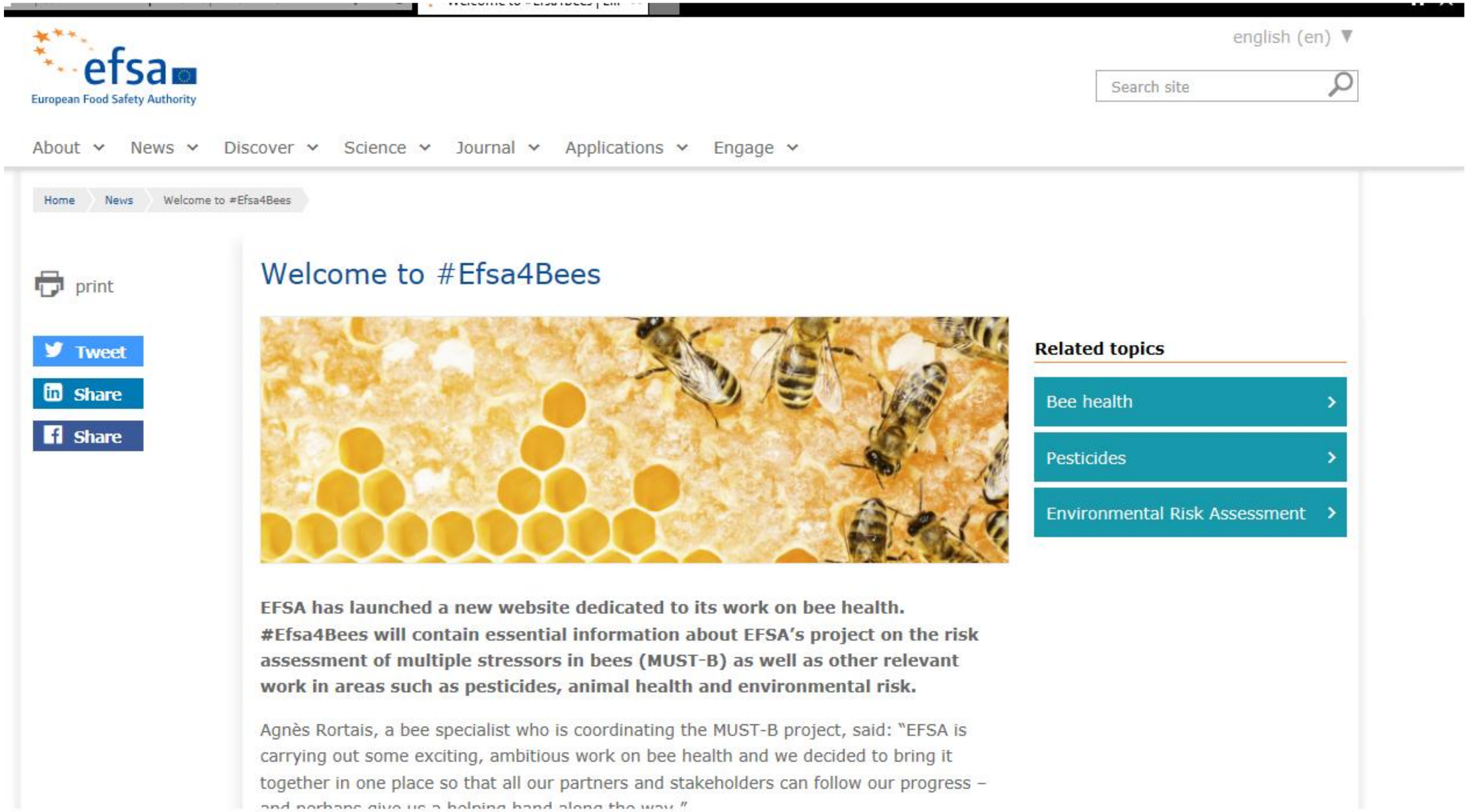
Risk assessments to bees according to the system within EU

- A stepwise procedure
- Present: Data requirements linked to decision-making criteria
- Further development of data requirements ongoing
- Guidance document on decision-making criteria proposed
- Implementation plan for the EFSA GD on risk assessment necessary.

Risk assessments to bees according to the system within EU, cont.

- Conclusions from WG 2013:
  - Roadmap for implementation of the EFSA guidance document
  - Trainings
  - Review of the protection goals
  - Amendment of Uniform Principles?

EFSA web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EFSA has launched a new website dedicated to its work on bee health. #Efsa4Bees will contain essential information about EFSA's project on the risk assessment of multiple stressors in bees (MUST-B) as well as other relevant work in areas such as pesticides, animal health and environmental risk.
Agnès Rortais, a bee specialist who is coordinating the MUST-B project, said: "EFSA is carrying out some exciting, ambitious work on bee health and we decided to bring it together in one place so that all our partners and stakeholders can follow our progress –

New guidance document

- The previous EU risk assessment scheme for honey bees did not take full account of risks from chronic or repeat exposure to pesticides or the potential risks to larvae.
- The new guidance fills these gaps as well as adding schemes for bumble bees and solitary bees.
- It also proposes a new method for assessing whether the potential harm posed to bees from the use of a plant protection product is acceptable.

data requirements

- Acute toxicity (LD_{50} µg/bee)
- Acute contact toxicity (LD_{50} µg/bee)
- Chronic oral toxicity
- Development of hypopharyngrals glands (NOEC), assessment factor of 5
- Larval toxicity (NOEC), assessment factor of 5

EFSA guidance document, 2013

- EFSA's guidance proposes tiered risk assessment schemes that progress from a simple first tier to a more complex higher tier using semi-field and field studies.
- All three schemes consider four main routes of exposure to pesticides from: spray deposits or dust particles; consumption of pollen; consumption of nectar; consumption of water (guttation fluid, surface water and puddles).
- This guidance document has been used for the risk assessments for bees on chlothianidin, imidacloprid and thiamethoxam.

Specific protection goals (SPGs)

- The schemes quantify the risk to bees using specific protection goals (SPGs), which were set in consultation with EU risk managers.
- SPGs define the maximum acceptable level of harm that can be caused to bees as measured against a series of "attributes to protect". For honey bees these are:
- survival and development of colonies;
- health of larvae;
- bee behaviour;
- abundance of bees;
- ability to reproduce.

”trigger values”

- EFSA’s pesticide experts agreed that, for honey bees, all the attributes to protect are directly related to colony strength i.e. the number of individuals in a hive. The scheme for honey bees therefore suggests that it is not acceptable for colony size to fall by more than 7% as a result of exposure to pesticides at any time. (Comment: Extremely difficult to measure)
- Data on mortality rates of bumble bees and solitary bees are scarce, so the schemes for these species are based on the data used for honey bees, but apply an additional safety factor to allow for differences in sensitivity to pesticides and factors such as feeding and breeding behaviour. Proposed assessment factor: 10