BeeLife proposals - Pollinator Eco-scheme

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CDG Direct payments and greening
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BeeLife
European Beekeeping Coordination

BeeLife, European Beekeeping Coordination

- an association created by professionals of the beekeeping sector from different countries of the European Union

- 9 countries more than 20 members

- Open to every association linked to bees, pollinators or beekeeping

Our Aims: a better environment for bees

- To reveal and solve the environmental problems of pollinating insects and more particularly the bees.
- To work for a better protection of the environment, in particular for an agriculture compatible with the well-being of pollinators and biodiversity.

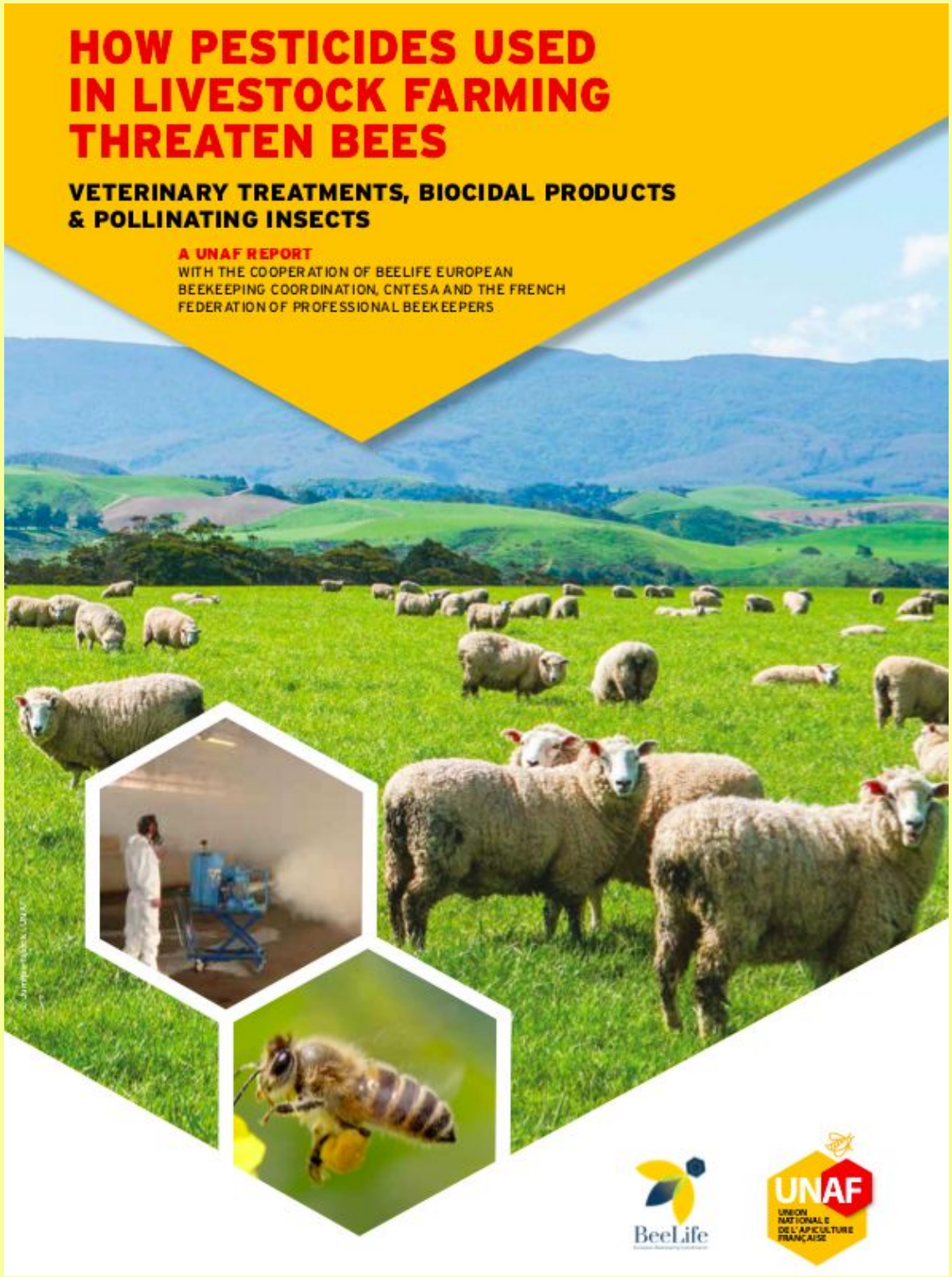
What we do

We achieve our goals, based on an agro-ecological approach, by means including:

- Scientific watch
- Regulatory monitoring and monitoring of European political processes
- Field studies and sample analyses
- Dissemination and exchange of information, notably through publications (in magazines and on the Internet, etc.), reports, books, videos, etc.
- Information and awareness raising of public authorities, political decision-makers, public opinion and beekeepers
- Dissemination of scientific knowledge to the general public
- Legal actions

Comments on Conditionality

GAEC 1	Maintenance of permanent grassland based on a ratio of permanent grassland in relation to agricultural area	Good measure. Attention to be given to **veterinary products** used in animal husbandry, For further details, please see here: https://docs.wixstatic.com/ugd/8e8ea4_467b544292764eb695ff0d14c86eeb86.pdf
GAEC 2	Appropriate protection of wetland and peatland	Good measure for pollinator protection
GAEC 4	Establishment of buffer strips along water courses 1	Attention!! If buffer strips contain plants of interest to pollinators **drift of pollutants** coming from treated fields are a threat (Kruepke et al., 2012, Botias et al., 2015, Simon-Delso et al. 2017, Tosi et al., 2018)
GAEC 6	Tillage management reducing the risk of soil degradation, including slope consideration	Good measure for pollinators
GAEC 7	No bare soil in most sensitive period(s)	Good measure to avoid erosion. **Cover crops** of plants/varieties with interest for pollinators in areas previously occupied by crops treated with persistent and/or systemic pollutants (Simon-Delso et al., 2017).



Version EN

Version FR

Comments on Conditionality

GAEC 8	Crop rotation	Ideally **crop rotation** would include **long rotations of 5-7 years** with plants and **varieties** of pollinators interest (see Eco-schemes)
GAEC 9	Minimum share of agricultural area devoted to non-productive features or areas ·Retention of landscape features ·Ban on cutting hedges and trees during the bird breeding and rearing season ·As an option, measures for avoiding invasive plant species	**"Non-productive areas"** contribute to ecosystem services such as pollination, nutrient recycling or pest-control, therefore they **are productive**!! There is no need to minimise this area, all the contrary **Landscape approach**: Variable percentage determined by the local context to be determined among local stakeholders (farmers, environmentalists, etc.) and administration
GAEC 10	Ban on converting or ploughing permanent grassland in Natura 2000 sites	Good measure for biodiversity

SMR 1	Directive 2000/60/EC of 23 October 2000 of the European Parliament and of the Council establishing a framework for Community action in the field of water policy: Article 11(3)(e) and Article 11(3)(h) as regards mandatory requirements to control diffuse sources of pollution by phosphates	"Enhanced conditionality" would involve avoid water pollution by other chemicals used in agriculture and livestock like **pesticides, biocides or veterinary products.**
SMR 2	Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1): Articles 4 and 5	**Catch and cover crops** aimed to reduce nitrate pollution mobilise pesticide residues retained in the soil (e.g. Simon-Delso et al., 2017). In biodiversity poor landscapes avoid bee-attracting catch/cover crops to bloom.
SMR 6	Council Directive 96/22/EC of 29 April 1996 concerning the prohibition on the use in stock farming of certain substances having a hormonal or thyrostatic action and beta-agonists, and repealing Directives 81/602/EEC, 88/146/EEC and 88/299/EEC (OJ L 125, 23.5.1996, p. 3): Article 3(a), (b), (d) and (e) and Articles 4, 5 and 7	Good measures to avoid contamination of beekeeping products with these substances.
SMR 11	Regulation (EU) 2016/429 of the European Parliament and of the Council of 9 March 2016 on transmissible animal diseases (OJ L 84, 31.3.2016, p.1). Article 18(1), limited to foot-and-mouth disease, swine vesicular disease and blue tongue.	**Avoid preventive treatment in open air of buildings, transport material or material used in animal husbandry with biocides.**
SMR 12	Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and repealing Council Directives 79/117/EEC and 91/414/EEC (OJ L 309, 24.11.2009, p. 1): Article 55, first and second sentence.	Application of **integrated pest management** should be an eligibility criterion for payment under the first pillar. Article 67 of the 1107/2009 to be included: farmers to register their pesticide use
SMR 13	Directive 2009/128/EC of the European Parliament and of the Council of 21 October 2009 establishing a framework for Community action to achieve the sustainable use of pesticides (OJ L 309, 24.11.2009, p. 71):	Application of **integrated pest management** should be an eligibility criterion for payment under the first pillar. Article 14 of the SUD to be included: farmers to uptake IPM since 2014

Eco-scheme proposal

CONSIDERATIONS

- Make eco-schemes compulsory in MSs
- Design local/regional/natural schemes for improving pollinator
- Outcome on farms, including monitoring results for pollinators
- Schemes should be multiannual - e.g. input reduction plan, five years planning
- **Landscape scale schemes**

Eco-scheme Pollinators: several complementary measures

OBLIGATORY MEASURES

- Seeding **varieties interesting for pollinators**, for which their **melliferous and/or polliniferous capacity is proved**, with prolonged flowering periods (e.g. sunflower, oilseed rape) - BEE-FRIENDLY PLANT BREEDING (CERTIFICATION?)
- Continuous **education** for farmers on beneficial insects (incl. pollinators and their role in pollination and pest control) - **min. 10 hours (e.g. biology, functionality, recognition, risks, etc.)**
- **One-to-one** beekeeper-farmer/naturalist-farmer **engagement** (e.g. contract between farmer and beekeepers)
- Payment for introduction (from 5% to 10%, 10% being the threshold to receive the payment) of **landscape features** (hedges, trees, flower strips, ponds, stone walls), with certain listed species (traditional, good for pollinators, ...) bearing in mind the flowering calendar so that there are year-long nutritional resources available
- **No preventive** use of pesticides (incl. seed treatment), **no** use of **persistent** pesticides

OPTIONAL MEASURES

- If pesticides treatment needs to be applied (IPM approach proved), apply **only after sundown** (when there is no active flying of pollinators)
- For countries who do not want to impose GAEC 8 (5-7 years rotation with varieties mentioned above), reward those farmers who take this approach.

Summary of behavioral and life history traits of insect pollinators

	Foraging							Nesting			Phenology		Sociality		
Guild	Localization		Range (m)			Diet breadth									
	CP†	non-CP	<500	500-3000	>3000	specialist	generalist	wax	soil	plant	seasonal	continuous‡	nonsocial	weakly social	highly social
honey bees	■				■		■	■				■			■
stingless bees	■		■	■			■	■				■			■
bumble bees	■			■		■	■	■	■			■		■	
other bees	■		■	■		■	■		■	■	■		■	■	
social wasps	■		■	■			■		■	■	■	■		■	■
solitary wasps	■		■	■		■	■		■	■	■		■		
other insect pollinators*		■	NA	NA	NA	■	■	NA	NA	NA	■	■	■		

*principally flies, butterflies and beetles: taxa distinguished by non-central-place foraging behavior and free-foraging larvae
†central-place
‡may refer either to perennial colonies (e.g. honey bees) or annual colonies that are active throughout all or most of the growing season (e.g. bumble bees)

Source: Sponsler et al., 2019 *Sci Tot Envi*

Other Eco-schemes that can support biodiversity

§ Conversion to organic
§ Introduction of not-farmed (when possible) buffer strips (herbaceous and arbustive/trees) to protect water and surroundings
§ Introduction of higher share of agricultural areas devoted to “non-productive” features to boosting functional biodiversity and beneficial species (ex. beyond 5%)
§ Introduction of longer crop rotations with leguminous (beyond 4 years)
§ Introduction of mixed cropping, cover crops, choice of varieties
§ High Nature Value farming
§ Agroforestry
§ Agro-ecological soil management
§ Enhanced crop rotation (if not in GAEC 8)

Pillar II Interventions that would support biodiversity and pollinators

- **Organic farming:** payment for conversion
- **Agroforestry:** payment for conversion
- Payment for **pesticide free** NATURA 2000 agricultural and forest areas (Article 67)
- Maintenance of landscape features (10-12%)
- **Agro-environmental interventions**: focus on “Improved management of grasslands”
- **Agro-environmental interventions, focus on improving of the agronomic baseline:** Conversion of arable land to **pesticide free** permanent pastures, introduction of longer crop rotations, mixed cropping, cover crops…toward pesticide free “colorful” agriculture
- **Agro-environmental interventions, focused on replacing pesticides with biological control products:** pheromones, nematodes, beneficial fungi, etc.
- **Investment scheme:** purchase of machineries to undertake mechanical weeding, bee-friendly machinery, resistance varieties, etc.
- **Agro-environmental interventions, focus on the holistic approach, for a resilient agriculture, but sector specific interventions,** which promote for example a healthy and living soil.

Practical case study: arable crops

Key objective: **establish or maintain a pollinator-healthy landscape**

Pollinator friendly "choices" under CAP

"ENHANCED" CONDITIONALITY

GAEC 8 : **5-7 years crops rotation** including crops interest for pollinators: buckwheat, raps, sunflower, pulses...
GAEC 9: **"non productive"** area
SMR 13: **IPM (NEVER preventive treatment, chemical option the last one)**

ECO-SCHEME

- Selected varieties for their melliferous/polliniferous potential
- Participation to a "pollinator training"
- 1 to 1 engagement
- Introduction of landscape features x%
- If chemical pesticide needed, no persistent, only after sundown

OTHER ECO-SCHEMES FAVORABLE OF BIODIVERSITY

- Organic farming
- Conservation farming
- Agro-ecology
- Permaculture
- ....

PILLAR II

Being a contributor to a citizen science project (e.g *Observatoire agricole de la biodiversité en France*)
- http://observatoire-agricole-biodiversite.fr/decouvrez-les-protocoles-0

Contribution to a Pollinator Index:

- putting in place insect hostel to monitor insect richness and abundance
- pollen collection and analyses (botanical + pollutants)

OTHER MEASURES FAVORABLE OF BIODIVERSITY

References

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Thank you for your attention!!

"Anything that can be imagined, can be real"
Walt Disney

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