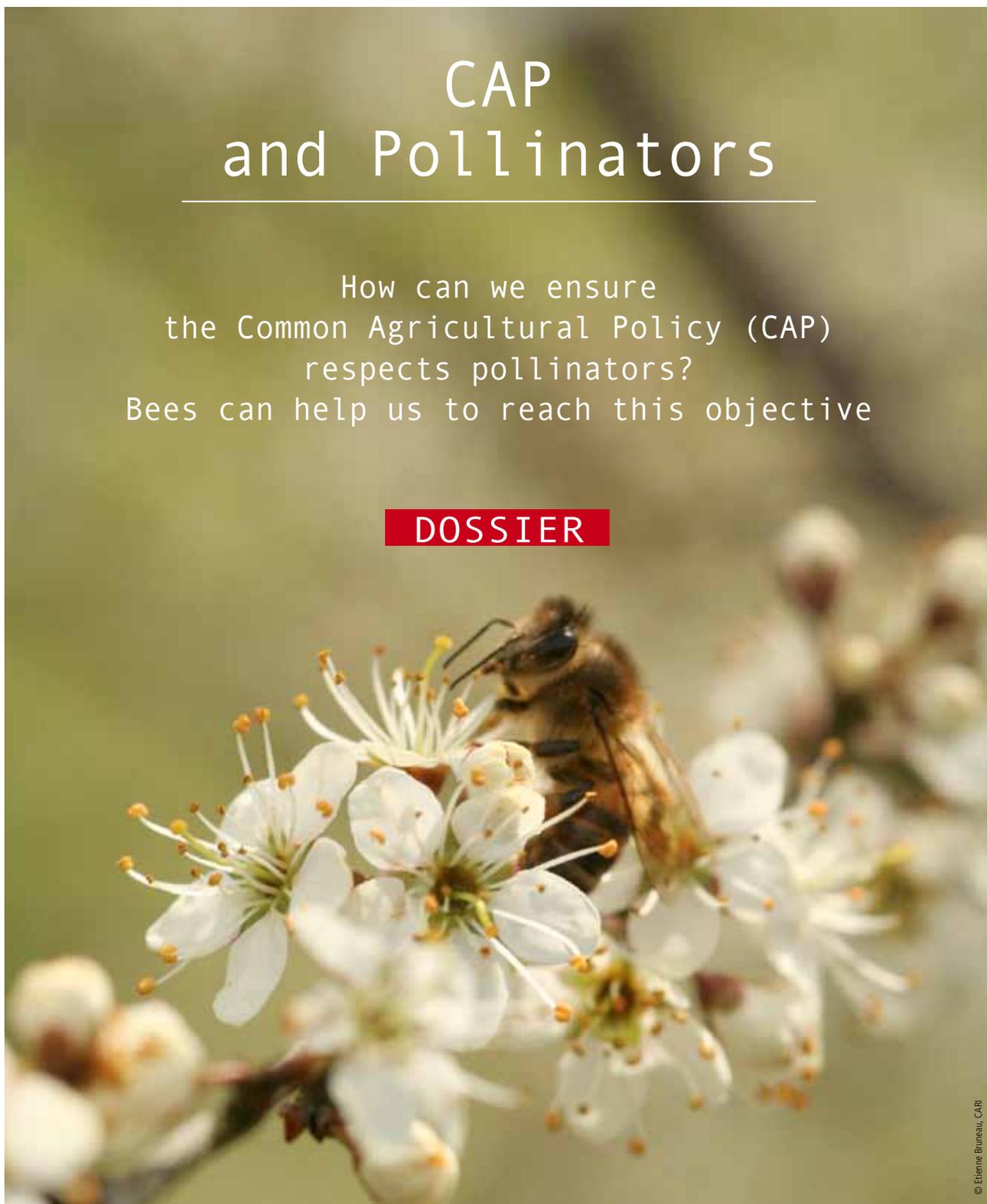


CAP and Pollinators

How can we ensure
the Common Agricultural Policy (CAP)
respects pollinators?
Bees can help us to reach this objective

DOSSIER



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This document covers recommendations for the implementation of the CAP 2014-2020 and for the orientation of European agricultural policy. It is intended for European citizens and their associations, farmers and their associations and consortia, farm advisors, scientists, public administrations as well as European, national and regional political decision-makers responsible for managing and developing the CAP 2014-2020. It is also addressed to organisations with an interest in safeguarding food production systems, environmental quality, and therefore also pollinators.

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INTRODUCTION

This document covers recommendations for the implementation of the CAP 2014-2020 and for the orientation of European agricultural policy.

We propose to place again bees and other pollinators in the heart of the food production system. We propose to build agricultural systems that respond to the needs of pollinators, while guaranteeing food production that contributes to the well-being of European citizens. These are the main recommendations for all rural European territories:

In agricultural terms:

- ▶ **Reduce the contamination of living beings** (humans, plants, animals, fungi, etc.), **soil, water and air with synthetic chemicals** (insecticides, herbicides, fungicides, miticide, nematicide treatments, fertiliser, growth regulators, etc.).
- ▶ **Encourage agricultural practices that respect the natural cycles and balances of ecosystems.** Well-established agricultural practices **are essential** to this end, like **crop rotation, intercropping and mixed and diversified production systems** (livestock farming, crop growing, timber production, food processing, etc.).

In terms of CAP management, it is essential to:

- ▶ **Constantly clarify the texts of European, national and regional laws** in order to respond to the needs of pollinators.
- ▶ **Communicate** to the direct beneficiaries of the CAP about the support available to them, in terms of training and independent technical services, to support a way of farming in harmony with the environment. It is necessary to develop these services and to communicate to the beneficiaries and civil society on a wide scale, about the research results towards agricultural practices that respect the environment. Training and research based on the agroecological approach, as well as environmental education, are key elements to an agricultural model that respects pollinators.
- ▶ **Evaluate** the environmental results of the CAP in rural areas. The vitality and productivity of honeybee colonies are excellent indicators that can be used to evaluate environmental results.
- ▶ **Verify the effectiveness of control and sanction methods** when damage has been caused and practices harmful to pollinators have been used.

In annex, you will find a non-exhaustive analysis of the CAP regulations, according to the needs of pollinators. Examples of initiatives favourable to pollinators are also provided.

Honeybee's characteristics, including their capacity to explore their environment, make them an excellent indicator of environment quality and conservation^{(A)(B)}.

Using honeybees to evaluate the results of the CAP in terms of environment quality is a possibility. Honeybees can signal whether the CAP objectives have been reached.

(A) www.biodiv.be/implementation/surveys/scoping-meeting/etude-abeille-sentinelle_fr_sept-2013.pdf/download

(B) www.cari.be/medias/abcie_articles/108_biodiversite.pdf

1. Pollinators at the heart of food systems and the CAP

Pollinators play an essential and irreplaceable role in preserving fertile, living and diversified food production systems. Everywhere in the world, pollinators are the basis of the diversity of the fruits and vegetables we eat¹ and of a multitude of wild and cultivated plants. Since the 1990s², beekeepers and scientists have been warning politicians and civil society about the loss of vitality and rising mortality of honeybee² and other pollinating insects (like wild bees, butterflies and moths). The decline of pollinators observed in rural areas is an indicator of the imbalance that the current agricultural production model is imposing on ecosystems. Pollinators, agriculture and food are the foundation of our health, our economies, society and cultures. To maintain healthy and sustainable agricultural production systems, we must at all costs respect pollinators and biodiversity on which such systems rely. In order to achieve this, our way of thinking and acting must evolve.



Beehive in a field of flowering cherries, France – © Felix Gil

How do humans feed themselves? Asking this question means being aware of how our food systems work. How are they organised? What are their implications? Who is involved, on what scale? Currently, the dominant system produces an unprecedented quantity of food. This production, however, is dependent on the use of chemical inputs and non-renewable energy. It is accompanied by significant food waste³ and major socio-economic impacts. Additionally, **in the 21st century, global agricultural production capacity has not increased anymore.**⁴ Meanwhile, **depletion of biodiversity confirms that the current production model is systematically destroying the resources essential to the equilibrium of agricultural systems.**



Honeybee on an onion flower – © CARII

1 <http://www.sciencedirect.com/science/article/pii/S0921800908002942>

2 Around 20 years ago, the average annual mortality of colonies of domestic bees varied from 0 to 5%. Now, losses are as high as over 30% a year in some countries. http://ec.europa.eu/food/animals/live_animals/bees/docs/bee-report_en.pdf

3 <http://www.fao.org/news/story/it/item/196458/icode/>

4 <http://www.fao.org/news/story/it/item/177481/icode/>



Acute poisoning of a beehive in France – © Julien Orain

The Common Agricultural Policy (CAP) 2014-2020 aims to be “a more effective policy for a more competitive and sustainable agriculture and vibrant rural areas.”⁵ It is no longer possible to think about sustainable agricultural production that does not respect nature and the environment. Every living being (plants, insects, mammals, worms, bacteria and so on) has its own role to play. As for pollinators, they bring life to plants. The work they do for free is the foundation of plant reproduction and the production capacity of food systems. Losing our pollinators or replacing them with some kind of artificial technology are not realistic possibilities if we think about the work they carry out, pollinating millions of flowers every day

Every political decision-maker is responsible for making choices that protect pollinators. The CAP 2014-2020 is a tool that offers an opportunity for safeguarding pollinators.



Beehive in a field of orange trees, Spain – © COAG

“There is broad acknowledgment too of the need to shift to more sustainable modes of production and consumption... Local initiatives and food policy councils are blossoming, creating the conditions for a ‘transition from below’ towards more sustainable food systems.”

Olivier De Schutter, UN Special Rapporteur on the right to food, 2008-2014.

www.srfood.org/en/end-of-mandate-looking-back-and-onward

5 http://ec.europa.eu/agriculture/cap-post-2013/index_fr.htm

2. The Basic Needs of Bees

Pollinating insects include some beetles, butterflies and flies (hoverflies), but it is bees that have the closest relationship with flowering plants. Over 2,500 species of bees⁶ are involved in pollination in Europe: the European honeybee (*Apis mellifera*), but also bumblebees, leafcutter bees, carpenter bees, mason bees, etc. The table below indicates the basic needs of bees, in general and simplified terms.

DIET	HABITAT	CHEMICAL PRODUCTS (insecticides, fungicides, herbicides, parasiticides, etc) ⁷	PARASITES/ PATHOGENS
<p>Bees' development is based on the availability (distribution in space and time) of nectar and pollen.</p> <p>Bees are vegetarian and find food from their surrounding environment. They feed on nectar, pollen and water.</p> <p>Just like humans, honeybees need a diversified⁸ diet of adequate nutritional quality⁹</p>	<p>The domestic <i>Apis mellifera</i> nests in a beehive.</p> <p>Wild bees need nesting sites¹⁰. Depending on the species, they shelter in cavities, in soil, in wood, etc.</p>	<p>ees are extremely sensitive to chemicals, particularly systemic pesticides like neonicotinoids and fipronil, even in tiny quantities.</p> <p>So as not to disturb the bees' biological cycle, the pressure of chemical contaminants to which they are exposed must be as close to zero as possible.</p>	<p>It is necessary to reduce pressure from parasites and pathogens. This concerns honeybees only and can be obtained by implementing good beekeeping practices.</p>



Flowering margins can act as insect traps – © Bee Life

6 http://www.cari.be/medias/abcie_articles/106_biodi2.pdf

7 <http://www.efsa.europa.eu/en/press/news/130116.htm> – <http://www.efsa.europa.eu/en/press/news/130527.htm>
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0103073>
<http://www.plosone.org/article/info%3Adoi%2F10.1371%2Fjournal.pone.0103592>

8 Pollen mixes (four types) guarantee an optimal lifespan and better resistance against pathogens. While, the requirements of essential amino acids are easily covered, bees also need fats and antioxidants to stay healthy. One type of pollen only can not provide a bee's its entire dietary needs, which can also vary depending on the species and the specific metabolism.

9 Selection of cultivated plants (particularly oleaginous plants and legumes) whose pollen and nectar meet pollinators' needs.

10 In the case of land use and cover changes, pollinators that nest on that site have to be able to find a favourable environment somewhere nearby, at a distance compatible with their colonisation ability. This distance can be fairly limited for some species.

Identification of agri-environmental action tools

- ▶ **For the management of food resources and habitats, it is necessary to act on:** synthetic fertilisers and herbicides, the variety of plants present in an area, the area of plant cover, availability of shelter, etc.
- ▶ **For the management of synthetic chemical products, it is necessary to act on:** the use of chemical products in agriculture. The main means of exposure to chemical products are environmental: **pollen, nectar and honeydew; air (dust); water (guttation water and other sources of contaminated water collected by bees); resin; the nest (via wax and soil).**
- ▶ **For parasites and pathogens:** an appropriate diet and habitat as well as a minimal chemical pressure from synthetic products help bees remaining healthy. In regards to parasites (varroa mites, etc.) and other pathogenic agents (viruses, fungi, etc.), the CAP's apiculture programme includes actions on beekeeping techniques. The apiculture programme is the tool that can offer to beekeepers the technical support to reduce pressure from these parasites¹¹ (see Attachment 4).



SPollination service on rape, Belgium – © CARI

¹¹ The EPILOBEE report shows that the mortality rates of bees in Europe in 2011/2012 are not due to pathologies.
http://ec.europa.eu/food/animals/live_animals/bees/docs/bee-report_en.pdf

3. Political action tools for improving the health of pollinators

- ▶ **Encourage networks, exchanges and transfer of knowledge** about the role and needs of pollinators.
- ▶ **Define priorities:** In the context of European, national and regional priorities, like *"restoring, preserving and enhancing ecosystems related to agriculture and forestry"*¹², it is important to consider the defence of pollinating insects within the whole European rural territory¹³ : crops, agroforestry, forests, meadows, fallow land. This approach must look towards the long term, but it is also essential that it shows tangible intermediate results in the short term.
- ▶ **Define the pressures to be avoided:**
 - (1) Reduce to the absolute minimum the contamination of living beings (plants, animals, humans, etc.), soil, water and air by synthetic chemicals.
 - (2) Avoid loss in plant diversity, particularly polliniferous and nectariferous plants.
- ▶ **Define objectives and measure results:** According to the principle of good financial management (Regulation no. 1605/2002 – Article 27), the defined political objectives must be *"specific, measurable, achievable, relevant and timed"*. For example, the objectives indicated here below can be defined and developed: reducing by x% the toxicity and/or the quantity used of chemical substances x, y and z on living beings, in all agricultural areas from now to year y.



Fallow ground left to flower at the edge of a field, France – © Felix Gil

¹² http://ec.europa.eu/agriculture/policy-perspectives/policy-briefs/05_en.pdf

¹³ The alternation between zones at risk and reserves is not advantageous for pollinators. For example, the zones like Natura 2000 (18% of European land, 27,000 sites) are not sufficient. The entire rural territory must be welcoming to pollinators.

► How can commitments and objectives be achieved?

- A main principle must be followed: **agronomy¹⁴ is at the base of agriculture**. The use of chemical inputs¹⁵ is expensive in terms of energy and destroys balances of nature. Sustainable agronomical practices allow to maintain diversified landscapes and the stability, vitality and fertility of agroecosystems.
- At a European, national and regional level,¹⁶ it is necessary to **identify gaps and positive aspects in the CAP's legal texts** in regards to conception, management and application (see Attachments 1, 2 and 3 of this document for an analysis of the CAP's legal texts at a European level). It is necessary **first of all to clarify the texts** in order to respond to the needs of pollinators. Then it is necessary to ask **questions** about CAP management, for example, what about evaluation for rural development programmes? What bodies are responsible for evaluating the programme? What control methods are used? What sanctions are applied when cross-compliance is not respected within a given period? What research programmes are underway to look into methods that would allow the reduction of the preventive use of pesticides? Why are plant protection products authorised for use on ecological focus areas, given the residues they leave and the fact that many of them have translaminal properties (absorption by plants and contamination of nectar and pollen)?



Pesticide-coated seeds displayed along a rural pathway, Austria



Contaminated soils and dust cause intoxication problems for the pollinators © Virginie Hateau

14 Crop rotation, mixed production systems (like crops and livestock, or agroforestry) on a human scale, the selection of plants that are productive while less-dependant of chemical inputs and other agronomic techniques known from the farmers.

15 By chemical inputs we mean chemical substances (pyrethroids like deltamethrin, organophosphorous compounds like chlorpyrifos, systemic insecticides like neonicotinoids and fipronil, systemic and translaminal fungicides, etc.), GMOs and synthetic fertilisers. The toxicity of new generation of pesticides has increased exponentially from the 1970s. Moreover, pesticides are often used according to a precise "calendar" or in a preventive way, without any proof of the economical damage and risk caused by pests.

16 These texts are available on the portals of the relevant institutions (like environment and agriculture ministries).

- Communicate and explain to all the parties the **problems observed** in the field, for example the use of synthetic pesticides along waterways and roads and the spraying of insecticides and fungicides on plants in flower. It is also necessary to communicate **examples of local experience that has positive impacts** on pollinators.
- Impose proportional **penalties** for the harm caused by agricultural practices that do not respect the regulations and which are in conflict with the needs of pollinators.
- In regards to the **evaluation** of the results of the CAP:
 - A report produced by the European Court of Auditors¹⁷ identifies **numerous problems with the conception and management** of the CAP 2007-2013. The report explains that the objectives are numerous and complex, hard to measure or not reached (see also the report on the first pillar of the CAP 2007-2013)¹⁸.
 - For the implementation of the CAP 2014-2020, why not use the **vitality and productivity of the honeybee as an agri-environmental indicator** and verify how the honeybee can be used to evaluate results in terms of landscape and environmental management, biodiversity and agricultural production performance?
- Clearly **communicate** to civil society the actions implemented by the CAP national programmes, the support available and the results obtained.
 - Create a space for reflexion aimed at structuring the different initiatives in favour of a food system that respects nature.
 - Publicise and distribute the scientific studies and initiatives that demonstrate agronomical results that respect pollinators.



Beehive and avocado trees, Spain – © COAG

17 "Is agri-environment support well designed and managed?" (2011) http://www.europarl.europa.eu/meetdocs/2009_2014/documents/cont/dv/sr7_/sr7_it.pdf

18 "Common Agricultural Policy: Is the specific support provided under Article 68 of Council Regulation (EC) no. 73/2009 well designed and implemented?" (2013) http://www.eca.europa.eu/Lists/ECADocuments/SR13_10/SR13_10_IT.pdf

ATTACHMENTS 1, 2 AND 3 ANALYSIS OF SPECIFIC ARTICLES FROM THE CAP REGULATIONS AND COMMENTS TO ENSURE THAT POLLINATORS ARE TAKEN INTO CONSIDERATION

In order to prepare these attachments, the European regulations that constitute the CAP 2014-2020 were examined and a series of questions were asked. Do the regulations meet the needs of pollinators? Are existing rules sufficiently detailed or strict? Will they be respected? Will Member States implement the CAP in a way that will respect the pollinators? This analysis is not exhaustive and can of course be expanded on different levels by the actors involved.

Attachment 1.

Regulation (EU 1306/2013) Financing, management and monitoring of the CAP¹⁹

This regulation defines the basis for the management of the CAP. Specifically, it presents the cross-compliance system with which farmers and managers of land must comply in order to receive direct payments.	
Chapters and articles	Our comments
<p>Title VI – Cross-compliance</p> <ul style="list-style-type: none"> ▶ Chapter I – Scope ▶ Chapter II – Control system and administrative penalties in relation to cross-compliance ▶ Annex II – Rules on cross-compliance <p>Title VII – Common provisions</p> <ul style="list-style-type: none"> ▶ Chapter I – Communication (Article 102 – Communication of information) ▶ Chapter III – Report and evaluation (Article 110 – Monitoring and evaluation of the CAP). <p>Title III – Farm advisory system (Article 12 and Annex I)</p>	<ul style="list-style-type: none"> ▶ As currently defined, cross-compliance refers to certain articles or to the entirety of the regulatory framework of the directives on water, nitrates and birds, the regulations on pesticides and so on. In the majority of cases, cross-compliance can be fulfilled with the minimum necessary. ▶ In regards to plant protection products, for example, the cross-compliance system does not aim to reduce chemical pressure. Cross-compliance requires respect for a provision contained in Regulation 1107/2009, Article 55, which only requires products to be used properly by applying the principles of ‘good practice’ and complying with the conditions specified on the product’s label. ▶ It is necessary to check that the cross-compliance system and the CAP regulations are respected. The effectiveness of control and sanction methods must be verified, in order to avoid offences that will have a negative impact on pollinators. The evaluation of the results and objectives to be reached is also necessary. ▶ Associations and organisations in direct contact with the field that observe repeated offences that cause harm to pollinators, must communicate these problems to the regional, national and European authorities (for example, spraying along waterways, spraying on flowers, etc.). ▶ It is important to stay informed in order to know how to benefit from the farm advisory system mentioned in Title III and to evaluate how this advisory system is linked to measures 14 and 15 of Regulation (EU) 1305/2013.

19 <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2013:347:0549:0607:it:PDF>

Annex 2.

Regulation (EU) no. 1307/2013 on direct payments²⁰ (Pillar 1)

This Regulation includes three agri-environmental and climate greening measures (crop diversification, permanent grassland and ecological focus areas). According to our analysis, the greening measures will not benefit pollinators unless they are accompanied by **management processes aiming to meet the needs of pollinators**.

Articles	Our comments
<p>Crop diversification (Articles 43 and 44)</p> <p>Arable land covering between 10 and 30 hectares Requirement: at least two different crops Main crop shall not cover more than 75% of that arable land</p> <p>Arable land of more than 30 hectares Requirement: at least three different crops Main crop shall not cover more than 75% of that arable land The two main crops together shall not cover more than 95% of that arable land</p> <p>Maximum thresholds shall not apply to holdings where grasses or other herbaceous forage or land lying fallow cover more than 75% of that arable land</p> <p>These requirements shall not apply where:</p> <ul style="list-style-type: none"> - 75% of the arable land is occupied by permanent grassland and the rest of the land is less than 30 hectares - 75% of the arable land is covered by grass, other herbaceous forage or fallow land and the rest of the land is less than 30 hectares 	<p>These measures are not advantageous to pollinators unless they are accompanied by appropriate management processes.</p> <p>Rotation must be long enough to:</p> <ul style="list-style-type: none"> ▶ avoid the attraction and multiplication of plant parasites (e.g. <i>Fusarium</i>) and pests (e.g. corn rootworms) ▶ reduce the need for plant protection products and inputs ▶ maintain auxiliary resources like soil, water and pollinators ▶ reduce energy needs <p>Reducing the use of synthetic pesticides on agricultural crops is an objective that needs to be defined, followed, controlled and respected.</p>
<p>Practices equivalent to crop diversification (Annex IX)</p> <p>1) Crop diversification</p> <p>Requirement: at least three crops, the main crop covering a maximum of 75% and at least one of the following applying:</p> <ul style="list-style-type: none"> - there are at least four crops - lower maximum thresholds apply - there is a more appropriate selection of crops, such as, for example, leguminous, protein crops, crops not requiring irrigation or pesticide treatments, as appropriate - regional varieties of old, traditional or endangered crop types are included on at least 5% of the rotated area 	<ul style="list-style-type: none"> ▶ Interesting if leguminous and protein crops produce nectar and pollen and come into flower during the pollinator foraging period and if the reduction of pesticides is effective.

20 <http://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32013R1307&from=en>

2) Crop rotation	
Requirement: at least three crops, the main crop covering a maximum of 75%, and any one or both of the following applying:	
- more environmentally beneficial multiannual sequence of crops and/or fallow is followed	
- there are at least four crops	
3) Winter soil cover (*avoid double funding)	▶ Ensure that pesticides are not used on these crops. Treatment contaminates plants, soil and flowers from succeeding crops, depending on its persistence. Ban the use of herbicides for the destruction of cover.
4) Catch crops (*avoid double funding, point (c), Article 43(12))	▶ Ensure that pesticides are not used on these crops. Treatment contaminates plants, soils and flowers from succeeding crop, depending on its persistence. Ban the use of herbicides for the destruction of cover.

Permanent grassland Articles 43 and 45	Our comments
Farmers shall not convert or plough permanent grassland situated in areas designated by Member States. These generally correspond to environmentally sensitive areas (wetlands, peat bogs, grassland with calcareous soil, etc.)	Grassland is attractive to pollinators if managed appropriately, in such a way as to allow diversified flowers and very limited chemical pressure linked to synthetic products (pesticides, fertilizers). The elements to be taken into consideration in such a management are, for example: <ul style="list-style-type: none"> ▶ the date of mowing/grazing in order to preserve the melliferous flora ▶ the density of livestock, adapted to the available resources ▶ shredding and mowing methods ▶ mowing and shredding times (during periods when pollinators are less active) ▶ encouraging management that reduces the regular use of synthetic pesticides and fertilisers in order to develop a diversified flora and reduce chemical pressure on pollinators ▶ avoiding regular and preventive use of anti-parasite treatments on farmed animals ▶ ...
Practices equivalent to the maintenance of permanent grassland (Annex IX)	
1) Management of meadows or pastures	
Requirement: maintenance of permanent grassland and any one or more of the following:	
- cutting regime or appropriate mowing (dates, methods, limits)	

- maintenance of landscape features on permanent grassland and control of scrub	▶ The presence of differentiated landscape features guarantees greater biodiversity, which is good for pollinators
- specified grass varieties and/or seeding regime for renewal depending on the grassland type, with no destruction of high nature value	▶ Interesting area for guaranteeing the presence of a diversity of pollinators
- evacuation of forage or hay	▶ Allows impoverishment of the soil and therefore a diversified flora, which is good for pollinators
- appropriate management for steep slopes	
- fertiliser regime	
- pesticide restrictions	▶ Positive for the reduction of pressure caused by pesticides
2) Extensive grazing systems	<p>▶ Positive for the pollinators' food resources (low density of animals encourages the presence of melliferous flowers in grassland)</p> <p>▶ Generally extensive grazing systems imply a reduction of chemical pressure (minimal use of chemical substances in meadows and of anti-parasite treatments on animals)</p>
Requirement: maintenance of permanent grassland and any one or more of the following:	
- extensive grazing (timing, maximum stocking density)	
- shepherding or mountain pastoralism	
- using local or traditional breeds for grazing the permanent grassland	

Ecological focus areas (Articles 43 and 46)	Our comments
By 1 August 2014, Member States shall decide that one or more of the following are to be considered to be ecological focus areas :	<p>▶ As with Pillar 1's other two greening measures, the ecological focus areas are interesting for pollinators only if associated with appropriate management processes.</p> <p>▶ For example: banning the use of pesticides and fertilisers in these areas and encouraging the presence of melliferous plants.</p> <p>▶ Demand the maximum surface area for ecological focus areas. The current value of 5% is not definitive and will probably change in the coming years. Article 46(1): <i>"The percentage referred to in the first subparagraph of this paragraph shall be increased from 5% to 7% subject to a legislative act of the European Parliament and of the Council in accordance with Article 43(2) TFEU. By 31 March 2017, the Commission shall present an evaluation report on the implementation of the first subparagraph of this paragraph accompanied, where appropriate, by a proposal for a legislative act as referred to in the second subparagraph."</i></p>

a) land lying fallow	<ul style="list-style-type: none"> ▶ Fallow land has a very different impact on pollinators depending on its type. Fallow land considered an ecological focus area should demonstrate that it allows the development of melliferous flora.
b) terraces;	
c) landscape features, including such features adjacent to the arable land of the holding which, by way of derogation from Article 43(1) of this Regulation, may include landscape features that are not included in the eligible area in accordance with point (c) of Article 76(2) of Regulation (EU) No 1306/2013	
d) buffer strips, including buffer strips covered by permanent grassland, provided that these are distinct from adjacent eligible agricultural areas	<ul style="list-style-type: none"> ▶ Buffer strips can increase the exposure of pollinators to pesticides. The pollinators attracted by these zones risk to increase their exposure to substances spread on adjacent crops via the drift and by passing over the crops themselves. ▶ The use of pesticides in buffer strips must be banned. ▶ The monitoring and control of the use of pesticides in adjacent agricultural areas should be carried out with even greater care.
e) hectares of agro-forestry that receive, or have received, support under Article 44 of Regulation (EC) No 1698/2005 and/or Article 23 of Regulation (EU) No 1305/2013	A diversity of forestry species with the presence of melliferous species would have important repercussions on the survival of pollinators, as well as an additional economic return in terms of the productivity of agricultural areas.
f) strips of eligible hectares along forest edges	Interesting as long as they are not treated.
g) areas with short rotation coppice with no use of mineral fertiliser and/or plant protection products	Generally they are of no interest to pollinators (with the exception of some species like willows, as long as they are manage in way that enables their flowering.
h) afforested areas referred to in point (b)(ii) of Article 32(2) of this Regulation	Ban the use of pesticides in these areas
i) areas with catch crops, or green cover established by the planting and germination of seeds, subject to the application of weighting factors referred to in paragraph 3 of this Article	
j) areas with nitrogen-fixing crops	Some of these species are melliferous. Ban the use of pesticides in these areas.

III. Practices equivalent with ecological focus areas:	Our comments
Requirement: application of any of the following practices on at least the percentage of arable land set	
pursuant to Article 46(1)	
1) Ecological set-aside	
2) Creation of "buffer zones" for high nature value areas, Natura 2000 or other biodiversity protection sites, including along hedgerows and water courses	
3) Management of uncultivated buffer strips and field margins (cutting regime, local or specified grass varieties and/or seeding regime, re-seeding with regional varieties, no use of pesticides, no disposal of manure and/or mineral fertilisers, no irrigation, no soil sealing)	<p>▶ Refuge zone</p> <p>▶ If management measures are not implemented for buffer strips and adjacent crops, there is a risk of increasing the exposure of pollinators to pesticide treatments applied to adjacent crops. Therefore, these areas would become pollinator traps.</p>
4) Borders, in-field strips and patches managed for wildlife or specific fauna (herbaceous border, protection of nests, wildflower strips, local seed mix, unharvested crops)	
5) Management (pruning, trimming, dates, methods, restoration) of landscape features (trees, hedgerows, riparian woody vegetation, stone walls (terraces), ditches, ponds)	This management can be carried out and adapted to the needs of pollinators.
6) Keeping arable peaty or wet soils under grass (with no use of fertilisers and no use of plant protection products)	
7) Production on arable land with no use of fertiliser (mineral fertiliser and manure) and/or plant protection products, and not irrigated, not sown with the same crop two years in a row and on a fixed place (*avoid double funding, point (c), Article 43(12))	Very interesting because it directly concerns the reduction of chemical pressure due to synthetic products on arable land.
8) Conversion of arable land into permanent grassland extensively used	

Attachment 3.

Regulation (EU) 1305/2013 European Agricultural Fund for Rural Development (EAFRD)²¹ (pillar 2)

The second pillar of the CAP includes a considerable number of interesting measures to develop food and agricultural innovations, knowledge and social and economic innovations.

Measures	Our comments
Training, information, advisory services Articles 14 and 15 ²²	<ul style="list-style-type: none"> ▶ Encourage theory and practice and tackle topics like agroecology²³: between practices, social organisations and the food system – such as: Understand and manage a territory and a landscape – Forage autonomy – Mechanisms of change and transition – Melliferous plants and the needs of pollinators – How to develop a direct sales point and food processing, selling via short distribution channels, conversion to organic agriculture, integrated control of pests, etc. ▶ Encourage interdisciplinarity (technique, social aspects, management, economy, culture, communication, etc.). ▶ Provide long-term services, including commitments by the actors that aim for tangible results (such as pollinator health or water, soil and air quality). ▶ As already mentioned in the Regulation, it is important to work with independent and high-quality trainers and consultants. ▶ These measures do not finance secondary or higher education. But in order to ensure continuity and coherence in the system, it is necessary to integrate concepts regarding food systems and their links with nature into teaching programmes.
Cooperation, dialogue, working together, networks Articles 20, 27; 35; 42-44; 52; 54 ²⁴	<ul style="list-style-type: none"> ▶ Encourage the creation of networks between farmers (growers, beekeepers, livestock farmers, etc.), experts, scientists, NGOs and civil society for the development of initiatives and activities relating to management at a territorial level. It is necessary to ensure that these initiatives do not generate high costs or excessive administrative duties for the participants.
Research in collaboration with interested parties Article 53 ²⁵	<ul style="list-style-type: none"> ▶ Develop research projects whose main themes aim to reduce the pressure of chemical inputs on pollinators, promoting at the same time an agricultural model based on an understanding of natural cycles. An understanding of water-soil-air-plant-animal balances helps avoiding the use of synthetic inputs and to benefit from the services provided by auxiliary living beings like bees (pollination), predators and parasitoids (pest control) and worms (working the soil).

21 <http://eur-lex.europa.eu/legal-content/IT/TXT/PDF/?uri=CELEX:32013R1305&from=fr>

22 Article 14 – Measure to cover vocational training and skills acquisition actions (training courses, workshops, coaching, short-term farm and forest management exchanges and farm and forest visits). Support for the costs of organising and delivering the knowledge transfer or information action, including costs for travel. Article 15 – Measure to improve economic and environment performance as well as climate friendliness and resilience of holdings, enterprises and/or investments.

23 www.agroecologie.be

24 Regulation (EU) 1305/2013: Article 20 – Basic services and village renewal in rural areas; Article 27 - Setting-up of producer groups and organisations; Article 35 – Co-operation; Articles 42-44 LEADER; Article 52 – European network for rural development; Article 54 – National rural network.

25 53 – European Innovation Partnership (EIP) network http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=eip relating to productivity and agricultural sustainability (EIP-AGRI) http://ec.europa.eu/agriculture/eip/index_en.htm

Quality schemes for agricultural products and foodstuffs Article 16	▶ Encourage the specifications that take into consideration the needs of pollinators.
Physical investment Article 17	▶ Encourage investments that meet the needs of pollinators. Financially stimulate all the agricultural practices that meet the needs of pollinators.
Farm and business development Article 19	▶ Increase innovative local initiatives at a social and environmental level (paying attention to the supply of training, accessibility of land, etc.).
Risk management Articles 18, 36, 37, 38 ²⁶	▶ These are important intervention measures. However, agricultural practices that increase the resilience of the agricultural system are the one that must be encouraged, rendering the system able to resist catastrophes: quality soil to avoid erosion, crop diversification and rotation to avoid pest infestations.
Forestry/agroforestry Articles 21-26, 34 ²⁷	For agricultural practices as such, we suggest the following basic principles:
Agri-environment-climate measures (AECM) including organic agriculture (Articles 28 to 32) ²⁸	▶ Reduce to the minimum the use of plant protection and veterinary treatments. Avoid preventive treatments based on chemical substances on animals and rural land: crops, grassland, refuge areas, woodland and agroforestry zones, ecological focus areas.
Animal welfare (Article 33)	▶ Encourage mixed agricultural systems like polyculture-animal farming and agroforestry ²⁹ , so as to encourage the equilibrium and continuity of natural cycles on the farm (cycle of organic materials, quality of soil, diversification of plant cover, etc.) and move towards greater autonomy for the farm (reduction of the use of chemical inputs).
	▶ Taking into consideration the size of the areas planted with crops and apply rotation in such a way as to encourage natural cycles (reduce the pressure of pests, improve fertilization thanks to natural regeneration of the soil, increase resources for auxiliary insects, gradually reduce the need to use chemical, energy and forage inputs, etc.).
	▶ Choose and maintain plants that are attractive to pollinators ³⁰ such as crops (for example, forage legumes like alfalfa, sainfoin, fava beans), grassland, wooded and agroforestry zones.
	▶ Pay attention to the "conservation, use and sustainable development of genetic resources in agriculture". Melliferous species in a specific area must offer a good quality of flowers for pollinators, associated with nutritional quality for consumers.

26 Regulation (EU) 1305/2013: Article 18 Restoring agricultural production potential; Article 35 – Risk management; Article 37 – Crop, animal, and plant insurance; Article 38 - Mutual funds for adverse climatic events, animal and plant diseases, pest infestations and environmental incidents.

27 Regulation (EU) 1305/2013: Article 21 – Investments in forest area development and improvement of the viability of forests; Article 22 – Afforestation and creation of woodland; Article 23 – Establishment of agroforestry systems; Article 24 – Prevention and restoration of damage to forests from forest fires and natural disasters and catastrophic events; Article 25 – Investments improving the resilience and environmental value of forest ecosystems; Article 26 – Investments in forestry technologies and in processing, in mobilising and in the marketing of forest products; Article 34 – Forest-environmental and climate services and forest conservation.

28 Regulation (EU) 1305/2013: Article 28 – Agri-environment-climate; Article 29 – Organic farming; Article 30 - Natura 2000 and Water Framework Directive payments; Article 31 – Payments to areas facing natural or other specific constraints; Article 32 – Designation of areas facing natural and other specific constraints

29 Agroforestry: rural trees and plant cover for bees http://data.over-blog-kiwi.com/0/93/91/74/20140506/ob_e23c00_afaf-agroforesterie-et-abeilles.pdf Trees and pollinators http://data.over-blog-kiwi.com/0/93/91/74/20140506/ob_bc475c_livret-arbres-pollinisateurs.pdf

30 http://www.cari.be/medias/abcie_articles/138_flore.pdf; List of plants of melliferous interest – see Attachment 4, p. 36. http://www.itsap.asso.fr/downloads/publications/cahier_technique_verdissement_bd.pdf

Comment:

It is up to the Member States to define the agri-environment-climate measures. According to the evaluation of the Court of Auditors (2011), the main groups of agricultural practices for agri-environment payments are the following:

- ▶ Organic farming
- ▶ Integrated production
- ▶ Other means of extensification of agricultural practices: reduction of fertilisers, reduction of pesticides and extensification of animal farming
- ▶ Crop rotation, maintenance of fallow land
- ▶ Measures aimed at preventing or reducing soil erosion
- ▶ Genetic resources (native breeds at risk of being abandoned, plants threatened by genetic erosion)
- ▶ Actions to preserve and strengthen biodiversity
- ▶ Maintenance of the landscape, particularly preservation of traditional characteristics of agricultural land
- ▶ Actions linked to water (with the exception of the management of nutritional substances) like buffer strips, field margins and management of wetlands.

Of the agri-environmental measures, some are simple and generalised (maintenance of pastures, plant cover of agricultural land, etc.) and others are more challenging (like organic farming and agroforestry) and require more ambitious types of agricultural management. These **challenging measures** are currently put into practice on a too small agricultural area and by a too limited proportion of farmers. However, these are the measures that must be encouraged the most, because they are the ones with the greatest environmental impact. The best examples of agri-environmental measures are those “**focused on practical realisation**” whose implementation leads to results that can be directly observed in the field.

http://www.eca.europa.eu/Lists/ECADocuments/SR11_07/SR11_07_EN.pdf

Attachment 4.

Regulation (EU) no. 1308/2013 on the common organisation of the markets in agricultural products³¹

Apiculture programme: see the recommendations of the 2013 European Congress on Beekeeping, "Beecome":
<http://www.become.eu/recommandations/>

³¹ <http://eur-lex.europa.eu/legal-content/FR/TXT/PDF/?uri=CELEX:32013R1308&from=en>

Attachment 5.

Examples of training, research and education initiatives about nature and pollinators

Ex. 1: Cotton and beekeeping: this initiative revitalised the cultivation of cotton and the production of cotton honey in southern Spain thanks to integrated pest management (IPM) methods³²

Ex. 2: Organic farming to improve water quality and reduce contamination from pesticides and nitrates³³

Ex. 3: Farms and flowers: a Dutch initiative that unites IPM measures with the promotion of melliferous plants³⁴

Ex. 4: Alternatives to neonicotinoids: suggestions from a survey in Italy³⁵

Ex. 5: Integrated pest control strategies for maize put into practice in Italy³⁶

Ex. 6: Bees, trees and territory: agroforestry landscapes for welcoming and feeding honeybees³⁷ in France

Ex. 7: Departmental charter of coexistence: reproducers of seeds, beekeepers, organic farmers, local communities, actors in the same territory³⁸

Ex. 8: APENET & Beenet: national monitoring in Italy of bee health and bee environments³⁹

Ex. 9: Creating new food models: the "Ceinture aliment-terre liègeoise"⁴⁰

Ex. 10: Alternative agriculture: understanding, networking and supporting initiatives that put nature at the heart of the food system⁴¹

Ex. 11: The taste of the landscape⁴², the theatre and musical production *La Solitudine dell' Ape*⁴³, the Terra Madre show *Fratello Seme, Sorella Acqua*, the film *The hoe on the feet*⁴⁴: innovative artistic, communication and awareness-raising tools to understand the honeybee, its story, its problems and its habitat.

Ex. 12: A municipality in northern Italy specialising in apple cultivation decides to ban all pesticide use within its boundaries⁴⁵

Ex. 13: Nature network: examples of grassland management⁴⁶

32 <http://bee-life.eu/en/doc/454/>

33 <http://www.itab.asso.fr/downloads/eauaa82.pdf>

34 <http://bee-life.eu/medias/temp/bos-22032013-ipm-for-a-bee-friendly-landscape-brussels.pdf>

35 <http://bee-life.eu/en/doc/610/>

36 <http://bee-life.eu/en/doc/611/>

37 <http://www.agroforesterie.fr/documents/fiches-thematiques/Livret-Arbres-Abeilles-agroforesterie-Principes-AP32.pdf>

38 http://m.cg47.fr/fileadmin/Documents/Agriculture_et_foret/Charte_coexistence_dec_2012.pdf

39 <http://www.bulletinofinsectology.org/pdfarticles/vol66-2013-160-160beenet.pdf>

40 <http://www.catl.be>

41 <http://www.agricultures-alternatives.org/>

42 <http://legoutdupaysage.com>

43 <http://lasolitudinedellape.blogspot.be>

44 <https://www.facebook.com/pages/Bee-Life-European-Beekeeping-Coordination/228160887382539?ref=hl>

45 <http://www.mieliditalia.it/index.php/api-agricoltura-ambiente/notizie-agricoltura-e-ambiente/81632-in-val-venosta-il-primo-comune-deuropa-senza-pesticidi->

46 http://www.natagora.be/fileadmin/Reseau_nature/Fiche_de_gestion/Prairies_Fleuries_Fauches.pdf
http://www.natagora.be/fileadmin/Reseau_nature/Fiche_de_gestion/Patures_VersionFinale.pdf



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