



European Commission DG
Agriculture and Rural
Development
**Evaluation of measures for
the apiculture sector**

Leaflet



Evaluation of the CAP measures related to apiculture
Agriculture and Rural Development DG- Preliminary Final Report

1.1 Objectives and Methodology

Apiculture plays a crucial role in European agriculture. The sector generates an annual value added of €1 billion, but also contributes its part to the total amount of at least €22 billion that is delivered by pollinators to European agriculture¹. Beekeeping is therefore of utmost importance to support the EU's agricultural sector, thereby fostering the sustainable development of rural areas and maintaining biodiversity.

In recent years, the general trend has been a decrease in the bee population in the North/West of the EU and a slight increase in the South/East with significant spatial and time variations. Pressures on the bee population could have detrimental impacts on crop production in the EU and therefore food security. Furthermore, European beekeepers are evermore subject to pressure from international competition on the global honey market, threatening the beekeeping activity.

In light of these pressures, the European Union, notably under the Common Agricultural Policy (CAP), introduced various measures relating to bees and honey. The articles 105 to 110 of Council Regulation (EC) No 1234/2007 foresee support measures to improve the general conditions for the production and marketing of apiculture products, by co-financing 50% of the Apiculture Programmes developed by Member States. The six measures are 1) technical assistance to beekeepers and groupings of beekeepers 2) varroasis control 3) rationalisation of transhumance 4) measures to support laboratories carrying out analyses of the physico-chemical properties of honey 5) measures to support the restocking of hives in the Community and 6) cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products.

This evaluation examines the effectiveness, efficiency, coherence and relevance of the six measures under the Common Agricultural Policy (CAP) supporting the general conditions for the production and marketing of apiculture products.

The evaluation study is based on extensive desk research, interviews, surveys and fieldwork. A large ad hoc data set was generated specifically for this evaluation in view of the limited information available in the national programme reports.

1.2 Results of the evaluation

Effects on production, marketing and trade

Honey **production** in the EU-27 has remained largely stable over the last decade. After a relatively sharp increase at the beginning of the first decade of the century, it remained within a range of $\pm 2.5\%$ of the average for the rest of the decade. The measures (including those under earlier Regulations) appear to have indeed supported production at current levels despite rising production costs and price-competitive honey imports from third countries and despite threats from diseases (varroasis, nosema, and American foulbrood).

¹ See for references on the pollination effect of beekeeping e.g.
http://ec.europa.eu/food/animal/liveanimals/bees/index_en.htm
and <http://www.efsa.europa.eu/en/topics/topic/beehealth.htm>.

The main effect of the apiculture measures has been a contribution to the stabilisation of the production of honey in the EU through gains in productivity and quality. The technical assistance measure appears to have made a particular contribution to productivity and quality gains through training, by enabling the dissemination of technical information among beekeepers and facilitating the acquisition of new, more efficient equipment for the production of honey and other apiculture products.

The impact on production of the measure supporting the fight against the varroa parasite, which is a major threat and costly to combat, has been very positive. However, in some countries the take-up of the measures was limited. This was due to the fact that the procedures associated with obtaining the assistance on fighting varroasis were felt to be too burdensome by beekeepers or due to lack of a national budget for this particular measure.

The measure supporting the rationalisation of transhumance was found to be highly valued in the case studies carried out in Greece and Spain. It was rarely used elsewhere in the EU as the measure is more suitable for professional beekeepers with large numbers of hives.

Where applied, the restocking of hives received general support from beekeepers and the effect on production was found to be clearly positive.

The associations and individual beekeepers consulted in the evaluation expressed unanimously their belief in the *potential* importance for honey production of the applied research measure.

The measures have generally not had a substantial impact on the national composition of **marketing** channels for honey. For example, as was the case before the evaluation period, all the honey produced in Germany continued to be sold locally and through direct sale, while around 50% of the honey produced in Spain is still sold to wholesalers.

According to the surveys conducted in the evaluation the measure to support laboratories carrying out analyses of the physico-chemical properties of honey has contributed to the quality of honey and thus facilitated its marketing. Promotion of honey supported by actions developed under the national programmes has led to increased awareness of consumers of the quality of honey produced locally and thus to their willingness to pay a higher price. This was for example the case in Germany thanks to the quality label and also in Hungary through the Hungarian producers honey jar.

Both intra-EU and **trade** with third countries remained relatively stable between 2008 and 2011. Since 2000, exports of honey from the EU to third countries approximately doubled, while imports from third countries increased by some 15%. Any causal effect between the measures and these increases is, however, hard to establish as world demand has been rising.

In principle, by favouring the maintenance of EU domestic production, the measures may have contributed to stimulating honey exports and containing imports. However, direct substitution between the different types of honey produced in the EU and imported honey appears to be quite limited. However, there appears to have been some local, targeted positive trade effects of the measures, arising from quality promotion. The *quality* of the honey produced is a major factor for remaining competitive, and several of the measures served this objective. The overall maintenance of high quality levels in EU honey production has been a factor contributing to a widening (positive) gap between the average honey export price and the average honey import price.

There appears to have been a moderate positive effect of the apiculture measures on the keeping and trade in live bees. Trade in live bees remained largely local and limited.

Beekeepers usually breed their own queens and swarms to restock their hives to cover losses suffered during the winter and due to other causes.

There has been a strong rise in beekeepers' production **costs** in recent years. This has been caused by increased bee mortality rates of 30-50%, which have driven up the price of colonies, in some cases fivefold² and by rising fuel costs which affect the cost of transhumance, particularly in drought-prone countries (e.g. Spain), where beekeepers had to scale up their transhumance to cover larger distances to provide their bees with sufficient food. In addition, there has been an increase in the price of treating varroasis, and an increase in the use and cost of non-natural feeding costs, such as sugar.

These price increases have hit the **income** of beekeepers and of farmers for whom it is a side-line, since substantially higher production costs have not been matched by corresponding increases in selling prices. The measures have limited the impact of the higher costs by supporting the purchase of varroa medication, production related equipment and restocking of hives.

Where diversification was included in the national apiculture programmes, the apiculture measures encouraged the diversification of beekeepers' **sources of income** as these raised awareness on the potential of producing other apicultural products such as royal jelly.

Between 2005 and 2010, there was a steady yet significant increase in **producer prices** (the price received by beekeepers at the farm-gate or at the first point of sale). Looking at the four case-study countries, prices rose in a range from 35% in Germany to 126% in Hungary. Standard honeys are like a commodity and the world market sets the price. Where the support measures might influence the price obtained is for the more distinctive, pricier types of honey, where seasonal and annual availabilities produce larger variations in price. However, by contributing to stability of production, it can be argued that the apiculture measures have made a contribution to price stability, since 60% of EU consumption is domestic. If production were to fall, prices would probably rise, but it is impossible to hypothesise whether the higher unit price would offset the larger volumes, or the impact of imports on market prices in this scenario. It is also difficult to distinguish the effect on prices from the effect of increases in costs that were mentioned earlier and from weather influences.

Effects on the structures of production

The apiculture measures for individual beekeepers, such as **technical assistance**, **rationalisation of transhumance** and **control of varroa** have enabled beekeepers, particularly the professional beekeepers, to acquire modern production equipment. This has spurred the mechanisation of beekeeping and therefore enhanced productivity in the sector. Furthermore, having access to modern equipment through the apiculture measures has enabled beekeepers to treat varroasis more efficiently.

Measures benefiting collectives of beekeepers, such as **technical assistance**, **control of varroasis** and **rationalisation of transhumance**, have also resulted in structural improvements. These measures include dissemination of information through training courses or newsletters. Collective measures have made improvements in beekeeping practices

² Working Party on Honey, COPA COGECA, (2009, "European Beekeeping at a crossroads, Strategic plan proposed by European beekeepers", <http://www.biodlarna.se/website1/10.0.1.0/158/Strategisk%20plan%20Copa%20091118.pdf>.

possible, both for professionals and non-professionals, and have been particularly useful in informing beekeepers of adequate varroa treatment practices. This was particularly useful and necessary for non-professionals in order to limit one of the negative externalities of beekeeping, i.e. the spread of varroa. Fighting varroa requires a collective effort, as it can spread from apiary to apiary if it is not treated.

Collective measures have also contributed to increasing productivity, by providing beekeepers with market information, such as on the pollination potential of a specific area. However, there is scope for more use of promotion of collective measures.

The measures have had some impact on increasing the number of professional beekeepers, in part because eligibility for the measures was restricted to professionals in some countries. This has not been enough to change the differences in beekeeping structures across the EU in terms of the number of full-time and part-time professionals and those keeping bees as a hobby or side-line.

Effects on downstream sectors

The needs of the downstream sector mirror those of consumers: their price-sensitivity is related to the type of honey which they purchase. Customers are willing to pay a higher price for specialist honey, and notably local specialist honey, but are not ready to pay the same premium for honey mixes.

Honey mixes enable the downstream sector to blend different types of honey, and to change the mix if the price of a particular honey increases. This renders the market for this type of honey extremely competitive as EU producers selling into this market face strong competition from abroad, notably South America and China. There are therefore two distinct honey markets: high-end specialist honey and honey used in mixes.

As honey is an international market, the downstream sector is clearly influenced stronger by price developments related to climatic events or regional crises than by the apiculture measures. Moreover, as the EU's self-sufficiency ratio is rather low (60%), imports are inevitable to meet overall household and industrial demand in terms of quantity. However, by curbing production costs the measures have helped standard honeys remain competitive. The support to laboratory measures is particularly useful in this respect as it enables beekeepers to internalise this cost.

At the high end of the honey market, the measures, and notably the **technical assistance** and **varroa control** measures, have provided beekeepers with tools to adapt to developments in the market. The measures contributed to stabilising the market and increase prices, in particular through the product quality measures, such as the **support to laboratories**.

Effects on rural areas and the environment

The measures for apiculture have helped directly to maintain the sustainability of beekeeping in rural areas, as well as the entire system of economic activities which gravitates around it. This includes not only suppliers but also, indirectly through pollination, farmers. Numerous crop and plant producers could not carry out their activity without pollination, with an estimated share in pollination of 60-80% of pollination by bees frequently estimated in the

academic literature³. The overall pollination activity of the bees depends on that of beekeepers. Beekeeping therefore plays a crucial role in EU agriculture and rural development (and food security), by contributing to the total amount of at least € 22 billion that is delivered by pollinators to EU agriculture through pollination.

As pollination remains more of a positive externality delivered by honeybees than an activity in itself, the impacts of the apiculture measures on rural development and the environment are brought about by their positive influence on the bee population, which the measures have contributed to maintaining.

The varroa measures have provided beekeepers with an incentive to adopt environmentally friendly forms of control, e.g. through biological products.

Efficiency, management and administration

Drawing up the apiculture programmes with the measures was not found to be an especially onerous requirement. Bureaucracy was not generally identified as a major drawback at national level, although there were Member States where the paperwork and the time taken to decide on applications were felt to be excessive, and the perception was that more could be done to move to complete procedures electronically.

The decentralised management of the measures at regional level in some Member States appeared to have created inefficiencies in the implementation of the measures. Within countries differences existed between regions regarding the acceptance of different types of varroasis control products and equipment. This discrepancy reduced the profitability for laboratories, discouraging them from developing products because it limits their market share, and consequently increases the market price of products for beekeepers. Furthermore, in the case of equipment eligible for co-financing under the measures, the differences across regions may have caused comparative advantages or disadvantages for beekeepers in different regions.

Overall coherence with CAP objectives and other measures

It has been found in this evaluation that the CAP measures supporting the apiculture sector are coherent with the CAP as a whole.

In accordance with the CAP objectives the apiculture measures have contributed positively to productivity and earnings of beekeepers, to stabilising markets and assuring availability of supply for the downstream sector and for consumers as well as to ensuring supply at reasonable prices. Through the purchase of new equipment and through increasing knowledge and technical skills of beekeepers, the apiculture measures have helped to increase beekeeping productivity and thus supported incomes of beekeepers and farmers.

The apiculture measures have contributed to the achievement of the CAP objectives for Rural Development such as economic development, sustainable management and biodiversity. Regarding plant protection practices that are considered to be harmful for bees the European Council decided on a temporary ban for neonicotinoids in April 2013.

³ This estimate includes wild bees. Even if the pollination share of the bees kept in hives would only be around 10%, the lowest estimate found in the literature, the conclusion on a positive economic effect of the measures in the rural area remains valid.

A wide range of EU bodies (including four European Commission Directorates, an EU Agency (EFSA) and an appointed national institution (ANSES) have competencies linked to beekeeping, participate in beekeeping research projects and bee health initiatives. No major incoherencies among the policies of these bodies were found. Coherence has certainly been supported by the inter-service group on apiculture that meets every month. In view of the findings of the evaluation there is still room for a stronger coordination and larger dissemination of the results of the beekeeping research projects funded by the EU. Stronger coordination and larger dissemination would make the apiculture measures more effective e.g. by reducing bee loss and by fostering production improvements.

Overall, the measures and actions under the National Apiculture Programmes were found to be coherent with the CAP measures supporting apiculture as set out in the articles 105 to 110 of Council regulation (EC) 1234/2007.

Recommendations

- The six current support measures should be maintained. They were found to be effective as a group and to cover together the main needs of the sector, while providing sufficient flexibility to account for the diversity of conditions in Member States.
- The formulation of the objectives at EU level must be clearer in order to bring about a more holistic policy approach to the apiculture sector. It should be clear whether the priority of the apiculture measures is to consolidate the development of a competitive professional sector or to increase the spread of beekeeping activities through a higher number of non-professional beekeepers (providing, inter alia, environmental benefits), or whether the measures intend a combination of both. Although national conditions need to be taken into account clearer and more specified objectives at the EU level will improve the effectiveness and coherence of the measures.
- Greater synergies should be realised between the various bee-related research initiatives funded by the EU. Applied research funded through the CAP apiculture measures must be coherent with other research on bees funded by the EU. Greater synergies of EU research projects on bees need to be achieved e.g. through conferences and policy coordination organised by the Directorate-Generals of the European Commission.
- Marketing efforts promoting honey sales in those Member States where local honey quality is insufficiently valued should be scaled up. This would enable beekeepers to move up the value chain and produce (and/or sell) higher quality honey, which is less subject to international competition, and which can be sold directly to consumers.
- With a view to providing reliable evidence for decision making, further efforts⁴ should be pursued to monitor bee colonies in the EU. It should be explored how registration and follow-up requirements could be linked to the eligibility for support as a way of achieving such an objective.
- Promotion of cooperation among beekeepers through the apiculture measures should be strengthened. This would not only centralise resources and reduce costs, but also increase knowledge sharing and the effectiveness and relevance of the apiculture measures.

⁴ This should be achieved in line with the study already coordinated by the EU Reference Laboratory for Bee Health.