



# Agriculture And Rural Development ISAMM CM

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## Communication Display Page

### Communication information

Form number:	000695	Notifier:	Ireland
Name:	Amendments to the apiculture programmes	Status:	SENT
Business process:	Support programmes	Sector:	Apiculture products
Reference period:	03/06/2021 to 31/12/2022	Encoding period:	... to ...
Legal base:	<u>Commission Regulation - R 2015/1368 Art. 6</u>		
Description:	Amendments to the apiculture programmes - Please fill in only the amended annexes.		

[Communication Data](#)   [History](#)

### Annex - (1)

Evaluation of the results achieved to date during the implementation of the previous apiculture programme

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1	<input type="checkbox"/> <b>upload document</b>	No document selected

### Annex - (2)

Description of the method used to determine the number of beehives in accordance with Article 2 of Delegated Regulation (EU) No 2015/1366

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1	<input type="checkbox"/> <b>upload document</b>	No document selected

### Annex - (3) - Points (i) to (x)

### 3 - Points (i) to (x)

A study carried out by the Member State on the producing and marketing structure in the beekeeping sector in its territory

	<input type="checkbox"/>		
1	<input type="checkbox"/>	<b>(i) The number of beekeepers</b>	
2	<input type="checkbox"/>	<b>(ii) The number of beekeepers managing more than 150 beehives</b>	
3	<input type="checkbox"/>	<b>(iii) The total number of beehives managed by keepers with more than 150 beehives</b>	
4	<input type="checkbox"/>	<b>(iv) The number of beekeepers organised in beekeepers' associations</b>	
5	<input type="checkbox"/>	<b>(v) The annual national production of honey in kg the last 2 calendar years preceding the notification of the apiculture programme for approval : 1st year</b>	kg
6	<input type="checkbox"/>	<b>(v) ----- ----- ----- 2nd year</b>	kg
7	<input type="checkbox"/>	<b>(vi) The range of prices for multi-floral honey at the site of production - Average value</b>	€/kg
8	<input type="checkbox"/>	<b>(vi) ----- --- Minimum value</b>	€/kg
9	<input type="checkbox"/>	<b>(vi) ----- --- Maximum value</b>	€/kg
10	<input type="checkbox"/>	<b>(vii) The range of prices for multi-floral honey in bulk at wholesalers - Average value</b>	€/kg
11	<input type="checkbox"/>	<b>(vii) ----- - Minimum value</b>	€/kg
12	<input type="checkbox"/>	<b>(vii) ----- - Maximum value</b>	€/kg
13	<input type="checkbox"/>	<b>(viii) The estimated average yield in kg of honey per beehive and per year</b>	kg/beehive/year
14	<input type="checkbox"/>	<b>(ix) The estimated average production costs (fixed and variable) per kg of honey produced</b>	€/kg
15	<input type="checkbox"/>	<b>(x) The number of beehives in the last 2 calendar years preceding the notification for approval by those Member States who did not have such a programme in place for the preceding 3 years: 1st year</b>	
16	<input type="checkbox"/>	<b>(x) ----- 2nd year</b>	
17	<input type="checkbox"/>	<b>upload document (optional)</b>	No document selected

#### Annex - (4)

An evaluation of the needs of the apiculture sector in the Member State

	<input type="checkbox"/>	
1	<input type="checkbox"/>	<b>upload document</b> No document selected

#### Annex - (5)

A description of the objectives of the apiculture programme and the link between those objectives and the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No 1308/2013

1	<input type="checkbox"/>		
	<input type="checkbox"/>	<b>upload document</b>	No document selected

#### Annex - (6)

A detailed description of the actions which will be carried out under the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No 1308/2013, including the estimated costs and a financing plan broken down by year and by measure

		Next year	The year after	And the year after	
1	<input type="checkbox"/>				
	<input type="checkbox"/>	<b>(a) Technical assistance to beekeepers and beekeepers' organisations</b>	5 000.00 €	7 705.00 €	11 499.52 €
2	<input type="checkbox"/>	<b>(b) Combating beehive invaders and diseases, particularly varroasis</b>	5 000.00 €	30 820.00 €	11 499.52 €
3	<input type="checkbox"/>	<b>(c) Rationalisation of transhumance</b>	0.00 €	0.00 €	0.00 €
4	<input type="checkbox"/>	<b>(d) Measures to support laboratories for the analysis of apiculture products</b>	0.00 €	0.00 €	0.00 €
5	<input type="checkbox"/>	<b>(e) Restocking of hives</b>	0.00 €	0.00 €	0.00 €
6	<input type="checkbox"/>	<b>(f) Applied research programmes</b>	56 176.42 €	84 755.00 €	100 280.96 €
7	<input type="checkbox"/>	<b>(g) Market monitoring</b>	0.00 €	0.00 €	0.00 €
8	<input type="checkbox"/>	<b>(h) Enhancement of product quality</b>	0.00 €	0.00 €	0.00 €

#### Annex - (6) Upload document

1	<input type="checkbox"/>		
	<input type="checkbox"/>	<b>upload document</b>	<a href="#">Annex 6 Updated for Extension to 31 12 2022 and Expenditure Ver 3.docx</a>

#### Annex - (7)

Criteria established by the Member State to ensure that there is no double funding of apiculture programmes

1	<input type="checkbox"/>		
	<input type="checkbox"/>	<b>upload document</b>	No document selected

#### Annex - (8)

Performance indicators used for each apiculture measure selected. Member State shall select at least one relevant performance indicator per measure.

1	<input type="checkbox"/>		
	<input type="checkbox"/>	<b>upload document</b>	No document selected

#### Annex - (9)

## Implementing arrangements of the apiculture programme

1	▶ <b>(i) Contact point responsible for the management of the apiculture programme (upload document)</b>	No document selected
2	▶ <b>(ii) Description of the procedure for monitoring checks (upload document)</b>	No document selected
3	▶ <b>(iii) Description of the actions to be taken in case of undue payments to the beneficiaries, including the penalties (upload document)</b>	No document selected
4	▶ <b>(iv) The provisions to ensure that the approved programme is publicised in the Member State (upload document)</b>	No document selected
5	▶ <b>(v) The actions taken to cooperate with representative organisations in the beekeeping field (upload document)</b>	No document selected
6	▶ <b>(vi) Description of the method used to evaluate the results of the measures of the apiculture programme (upload document)</b>	No document selected

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## **Extension of the National Apiculture Programme Ireland**

The objectives of Ireland's 2019-2022 Apiculture Programme are to:

- Increase beekeeper awareness of disease symptoms and the importance of early detection by official laboratory diagnostics
- Provide greater scientific guidance for Irish beekeepers to improve their colony management, bee breeding, queen rearing and nutrition
- Conduct applied research on measures to potentially reduce Irish colony losses and improve bee health through diagnostic and therapeutic measures

These objectives will be achieved through implementing the following measures as set down in Article 55(4) of Regulation (EU) No. 1308/2013:

- technical assistance: training for beekeepers and group of beekeepers, on topics such as breeding or disease prevention, extraction, storage, packaging of honey etc.;
- combating beehive invaders and diseases, particularly Varroasis; Varroa is an endemic parasite, weakening a bee's immune system and leading to the loss of bee colonies if not treated;
- Cooperation with specialist bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products.

### **Extension:**

For the extension from the 31/07/2022 to 31/12/2022, the work under these objectives will be expanded and continued. This will take into account the increased budget and apply it accordingly and the terms as set out in COMMISSION IMPLEMENTING REGULATION (EU) 2021/166 of 10 February 2021 amending Implementing Regulation (EU) 2015/1368 as regards the extension of the national programmes in the apiculture sector will be applied.

## Annex 6

*For the extension from the 01/08/2022 to 31/12/2022, the work under these objectives will be continued. The expectation is that the Year 3 budget (ending 31/07/2022) will be used. A small amount of €18,972.60 (2023 budget) will be used for the period 01/08/2022 – 31/12/2022 to allow identified areas of research to continue to benefit beekeepers. This will take into account the increased budget and apply it accordingly as set out in COMMISSION IMPLEMENTING REGULATION (EU) 2021/166 of 10 February 2021 amending Implementing Regulation (EU) 2015/1368 as regards the extension of the national programmes in the apiculture sector will be applied.*

Annex – (6) - A detailed description of the actions which will be carried out under the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No 1308/2013, including the estimated costs and a financing plan broken down by year and by measure

Expenditure by measure	Next Year	The Year After
(a) Technical assistance to beekeepers and beekeepers' organisations	* 5,000 €	*7,705 €
(b) Combating beehive invaders and diseases, particularly varroasis	* 5,000 €	*30,820 €
(c) Rationalisation of transhumance	0 €	0 €
(d) Measures to support laboratories for the analysis of apiculture products	0 €	0 €
(e) Restocking of hives	0 €	0 €
(f) Applied research programmes	*56,176.42 €	*84,755 €
(g) Market monitoring	0 €	0 €
(h) Enhancement of product quality	0 €	0 €
Total	66176.42€	123,280 €

\*Please note these are approximate figures

Detailed description of the actions under the measures selected.

For separate upload document please upload the following points re Annex 6:

The objectives of Ireland's 2019-2022 Apiculture Programme are to:

- Increase beekeeper awareness of disease symptoms and the importance of early detection by official laboratory diagnostics
- Provide greater scientific guidance for Irish beekeepers to improve their colony management, bee breeding, queen rearing and nutrition
- Conduct applied research on measures to potentially reduce Irish colony losses and improve bee health through diagnostic and therapeutic measures

These objectives will be achieved through implementing the following measures as set down in Article 55(4) of Regulation (EU) No. 1308/2013:

- technical assistance: training for beekeepers and group of beekeepers, on topics such as breeding or disease prevention, extraction, storage, packaging of honey etc.;
- combating beehive invaders and diseases, particularly Varroasis; Varroa is an endemic parasite, weakening a bee's immune system and leading to the loss of bee colonies if not treated;
- Cooperation with specialist bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products.

In order to maximise the return on expenditure for the programme, specialised research bodies will be invited to submit detailed programme implementation proposals. The aim is to have experts in the field of apiculture and research techniques devise the programme of work to put the measures into operation and achieve Ireland's stated objectives.

Selection of the successful specialised body (or bodies) to implement the programme will be on the basis of a panel of expert evaluators who will use criteria such as: experience, knowledge and track record of the specialised body; quality of proposals; originality and degree of innovation; adequacy of the approach, methodology and work plan; dissemination plans; benefits to be derived from successful outcome; contribution of the work to the improvement of the apiculture sector and value for money.

An overview of the work proposed under each measure is outlined below.

### **Technical assistance to beekeepers and beekeepers' organisations**

In Ireland many beekeepers are small scale operators that have commenced beekeeping in recent years and as such are relatively inexperienced. While beekeepers are willing to help other beekeepers this advice can often be based on "hearsay" or their own personal experience rather than scientific or formal training. There are no trained advisers to assist Irish beekeepers. There is a need to train local trainers in best practice and general bee husbandry so they can provide standardised training especially to relatively new beekeepers. Beekeepers need assistance, particularly new inexperienced beekeepers, training in maintaining their colonies and how best to manage diseases. Knowledge transfer (KT) programmes will be held for beekeepers nominated by Ireland's beekeeping associations. Among other issues, KT will include modules on general bee husbandry, identification, sampling and treatment of bee diseases, queen rearing and swarm control as well as the safe production and appropriate labelling of honey. This KT programme will involve both theory and practical elements.

Other objectives under this measure are to disseminate information on good practice and the programme findings to the beekeeping communities. Information will be disseminated through frequent lectures at national and local level, submission of articles in beekeeping magazines and if applicable peer reviewed journals. Webinars would be used as another way of dissemination. Technical assistance costs will arise from KT programme costs, purchase of equipment, meetings with beekeepers as well as presentations to beekeeping associations and the publication of information booklets and/or manuals on bee diseases and good husbandry practices.

*It will provide more time to complete the objectives outlined, especially the possibility to collaborate with more beekeepers and therefore enable more samples to be collected in the national survey, which can take more time under Covid restrictions. This is key as the sampling conducted is central to the different objectives in the project. It will also allow further dissemination of information to the beekeepers.*

## **Combating beehive invaders and diseases, particularly Varroasis**

### **Varroa**

Alternative control methods for Varroa need to be investigated as Varroa still continues to be a serious problem for honeybee colonies. There is a need to look at alternative control methods for Varroa with a view to reducing the dependency on chemical treatments. Under the 2016-2019 programme Irish Apiculture Programme preliminary trials were conducted on combining management techniques with organic acids treatments, Management techniques for the control of Varroa and combining this with the use of organic acid treatments should be trialled further to determine their efficacy and how they can be maximised and whether a follow-up winter treatment is necessary. Irish context research is warranted in identifying predictors of Varroa resistance to current treatments and best for Integrated Pest Management programmes for Varroa in Ireland.

An important part of controlling Varroa post trial is the dissemination of information gathered to beekeepers, this could be in the form of how best to control Varroa based on the results of the trial and could include education and training and integrating this information into a national syllabus.

### **Nutrition**

In order to combat beehive invaders and diseases it is very important the colony and thus it will be less susceptible. Good nutrition could potentially improve the overall health, strength and vitality of stocks. Assessing the potential role of good nutrition in reducing colony losses and improving the overall health and vitality of stocks should be investigated with a view to providing information to beekeepers on how to keep their honeybees healthy through correct nutrition. As part of this study it is proposed that it concentrates on the study of pollen availability and floral diversity and the benefits of feeding pollen supplements.

*The time extension will also allow further work on Objective 2. That is to conduct a comprehensive review of all recent research developments on Varroa and disseminate these findings. The extra time for the National Apiculture Programme will allow these objectives to be extended and time to conduct the review on Varroa as a complete systematic review, where all relevant literature will be screened and also meta-analyses will be conducted.*

## **Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products**



Proposed work under this measure is categorised under the following headings: COLOSS Participation and Prevalence of American Foulbrood spores in Irish Honey and conducting AFB survey. Each element is outlined below:

#### COLOSS Participation and the Impact of Weather on Irish Colony Losses

Through its Apiculture Programme Ireland has monitored colony losses each year since 2008 and participated in the COLOSS Network. Based on this research over-winter losses are having a significant impact on the productivity of the Irish beekeeping sector. There is evidence that the levels of Irish over-winter losses tend to be higher than other EU Member States. It also appears the level of over-winter losses may be related to the weather experienced the previous season. Given the success of this work and strong voluntary beekeeper engagement, Ireland believes it is vital to continue this work in the future programme to build more information and further explore the reasons for these losses.

This aspect of the Irish Apiculture Programme will continue Ireland's participation in the COLOSS Network as well as collection of information on Irish colony losses and will, where appropriate, seek to establish possible reason(s) for these losses. In addition Irish data collected since 2008 will be compared with meteorological data over this period in an effort to establish if there is a relationship between Irish weather conditions and subsequent colony losses. If a relationship can be established it may then be possible to advise beekeepers on specific management practices which could reduce the risk of future losses occurring.

#### Prevalence of American Foulbrood spores in Irish Honey and AFB survey

American Foulbrood is a notifiable disease in Ireland, however it appears many cases of the disease are not reported and may not even be detected by Irish beekeepers. In an effort to establish the true incidence of the disease it is proposed to conduct a national survey to screen samples of Irish honey for the presence of American Foulbrood spores. Each beekeeper that submits a sample(s) of their honey will be notified of their result. This will encourage beekeepers with honey that has tested positive for the presence of American Foulbrood spores to be vigilant for symptoms of the disease in their hives and to submit samples for official laboratory diagnosis. Results will also be pooled for publication purposes. If the programme establishes there is a high incidence of American Foulbrood spores it should encourage all Irish beekeepers to be more vigilant for symptoms of the disease and to submit samples where appropriate. American foulbrood remains a serious problem in Ireland for the beekeeping community but there is a lack of reliable data on its prevalence, this makes it difficult to control and difficult to quantify rate of incidence of this disease among honeybee colonies in Ireland.

*The time extension will allow all aspects of this objective to be developed further. The time extension will allow further time to investigate the potential for adaptation to a changing climate in the different Irish bee groups. It will allow time to integrate the experimental data gained to model responses of the different honey bee groups using the specific existing model BEEHAVE.*

**Annex 8 – Performance indicators used for each apiculture measure selected. Member States shall select at least one relevant performance indicator per measure.**

**For separate upload document please upload the following points re Annex 8:**

At least one Performance Indicator will be used to monitor progress under each measure as set out below. Further performance indicators may also be added by specialised research bodies when they submit detailed programme implementation proposals. *As the objectives are the same for the extension 31/7/2022 to 31/12/2022 the same performance indicators will be used.*

Measure	Performance Indicator
Technical assistance to beekeepers and beekeepers' organisations	<ul style="list-style-type: none"> <li>• Level of dissemination to beekeepers regarding programme findings and information.</li> <li>• Successful implementation of a KT programme for beekeepers</li> </ul>
Combating beehive invaders and diseases, particularly varroasis	<ul style="list-style-type: none"> <li>• Alternative Varroa treatments subjected to trials to establish their efficacy and tolerability under Irish conditions.</li> <li>• Trial on benefits of good nutrition</li> </ul>
Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products	<ul style="list-style-type: none"> <li>• Number of research trials conducted as part of the programme</li> <li>• Number of beekeepers participating in annual COLOSS Survey</li> <li>• Establishing an AFB survey.</li> </ul>



# Agriculture And Rural Development ISAMM CM

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## Communication Display Page

### Communication information

Form number:	000161	Notifier:	Ireland
Name:	Notification of apiculture programme	Status:	SENT
Business process:	Support programmes	Sector:	Apiculture products
Reference period:	01/08/2019 to 31/07/2022	Encoding period:	15/02/2019 08:00 to 15/03/2019 23:59
Legal base:	<a href="#">Commission Regulation - R 2015/1368 Art. 3</a>		
Description:	Notification of apiculture programme		



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### Annex - (1)

Evaluation of the results achieved to date during the implementation of the previous apiculture programme

<input type="checkbox"/>		
<input type="checkbox"/>	<b>upload document</b>	<a href="#">Notification of Ireland NAP 2019-2022 final version.pdf</a>

### Annex - (2)

Description of the method used to determine the number of beehives in accordance with Article 2 of Delegated Regulation (EU) No 2015/1366

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### Annex - (3) - Points (i) to (x)

A study carried out by the Member State on the producing and marketing structure in the beekeeping sector in its territory

<input type="checkbox"/>		
<input type="checkbox"/>	<b>(i) The number of beekeepers</b>	3 300
<input type="checkbox"/>	<b>(ii) The number of beekeepers managing more than 150 beehives</b>	5
<input type="checkbox"/>	<b>(iii) The total number of beehives managed by keepers with more than 150 beehives</b>	1 302
<input type="checkbox"/>	<b>(iv) The number of beekeepers organised in beekeepers' associations</b>	3 173
<input type="checkbox"/>	<b>(v) The annual national production of honey in kg the last 2 calendar years preceding the notification of the apiculture programme for approval : 1st year</b>	190 000.00 kg
<input type="checkbox"/>		257 000.00 kg

### Annex - (3) - Points (i) to (x)

(v) -----

-----

- 2nd year

<input type="checkbox"/>			
<input checked="" type="checkbox"/>	(vi) The range of prices for multi-floral honey at the site of	19.25	€/kg production - Average value
<input checked="" type="checkbox"/>	(vi) -----	17.60 €/kg	Minimum value
<input checked="" type="checkbox"/>	(vi) -----	20.90	€/kg Maximum value
<input checked="" type="checkbox"/>	(vii) The range of prices for multi-floral honey in bulk at wholesalers	9.35	€/kg - Average value
<input checked="" type="checkbox"/>	(vii) -----	8.80 €/kg	Minimum value
<input checked="" type="checkbox"/>	(vii) -----	9.90	€/kg Maximum value
<input checked="" type="checkbox"/>	(viii) The estimated average yield in kg of honey per beehive and per 20 kg/beehive/year year		
<input checked="" type="checkbox"/>	(ik) The estimated average production costs (fixed and variable) per	7.00	€/kg kg of honey produced
<input checked="" type="checkbox"/>	(x) The number of beehives in the last 2 calendar years preceding the notification for approval by those Member States who did not have	21 390	such a programme in place for the preceding 3 years: 1st year
<input checked="" type="checkbox"/>	(x) -----	23 165	2nd year
<input checked="" type="checkbox"/>	upload document (optional)		No document selected

**Annex - (4)**

An evaluation of the needs of the apiculture sector in the Member State

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**Annex - (5)**

A description of the objectives of the apiculture programme and the link between those objectives and the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No 1308/2013

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**Annex - (6)**

A detailed description of the actions which will be carried out under the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No 1308/2013, including the estimated costs and a financing plan broken down by year and by measure

<input type="checkbox"/>		Next year	The year after	And the year after
<input checked="" type="checkbox"/>	(a) Technical assistance to beekeepers and beekeepers' organisations	5 000.00 €	5 000.00 €	5 000.00 €

**Annex - (6)**

<input type="checkbox"/>	<b>(b) Combating beehive invaders and diseases, particularly varroasis</b>	5 000.00 €	20 000.00 €	5 000.00 €
<input type="checkbox"/>	<b>(c) Rationalisation of transhumance</b>	€	€	€
<input type="checkbox"/>	<b>(d) Measures to support laboratories for the analysis of apiculture products</b>	€	€	€
<input type="checkbox"/>	<b>(e) Restocking of hives</b>	€	€	€
<input type="checkbox"/>	<b>(f) Applied research programmes</b>	€	€	€
<input type="checkbox"/>	<b>(g) Market monitoring</b>	€	€	€
<input type="checkbox"/>	<b>(h) Enhancement of product quality</b>	80 000.00 €	65 000.00 €	80 000.00 €

**Annex - (6) Upload document**

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<input type="checkbox"/>	<b>upload document</b>	Notification of Ireland NAP 2019-2022 final version.pdf

**Annex - (7)**

Criteria established by the Member State to ensure that there is no double funding of apiculture programmes

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**Annex - (8)**

Performance indicators used for each apiculture measure selected. Member State shall select at least one relevant performance indicator per measure.

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<input type="checkbox"/>	<b>upload document</b>	No document selected

**Annex - (9)**

Implementing arrangements of the apiculture programme

<input type="checkbox"/>		
<input type="checkbox"/>	<b>(i) Contact point responsible for the management of the apiculture programme (upload document)</b>	No document selected
<input type="checkbox"/>	<b>(ii) Description of the procedure for monitoring checks (upload document)</b>	No document selected
<input type="checkbox"/>	<b>(iii) Description of the actions to be taken in case of undue payments to the beneficiaries, including the penalties (upload document)</b>	No document selected
<input type="checkbox"/>	<b>(iv) The provisions to ensure that the approved programme is publicised in the Member State (upload document)</b>	No document selected
<input type="checkbox"/>	<b>(v) The actions taken to cooperate with representative organisations in the beekeeping field (upload document)</b>	No document selected
<input type="checkbox"/>	<b>(vi) Description of the method used to evaluate the results of the measures of the apiculture programme (upload document)</b>	No document selected

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## Notification of Ireland's Apiculture Programme 2019-2022

### Annex 1 - Evaluation of the results achieved to date during implementation of the previous apiculture programme

**For separate upload document please upload the following points re Annex 1:**

#### Evaluation of Ireland's previous apiculture programme

As notified in 2016, the measures for Ireland's Apiculture Programme 2016-2019 were:

- Technical assistance to beekeepers and beekeepers' organisations □ Combating beehive invaders and diseases, particularly Varroasis
- Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products.

Total funding available for Ireland's Apiculture Programme 2016-2019 was just over €72,000 per year. In order to maximise the return on these funds specialised research bodies were invited to submit detailed programme implementation proposals. All funding was awarded to the one successful research body which is working in collaboration with a number of other research institutions at zero cost to the Programme. While the current programme will not conclude until August 2019 it is possible at this stage to provide an interim evaluation of its outcomes. This is set out below.

#### [Technical assistance to beekeepers and beekeepers' organisations](#)

There has been strong dissemination of information on good practice and the Programme's findings to the beekeeping communities. A website has been developed and made available to the public and will be updated with publications ([www.nationalapicultureprogramme.info](http://www.nationalapicultureprogramme.info)). A lecture programme is being developed for the beginner beekeepers. This programme will contain formal lectures and practical elements. Oral presentations and workshops on many aspects of honeybee health are given frequently to local beekeeping and national beekeeping associations. Articles are published frequently in the national beekeeping magazine, *an Beachaire*, on relevant honeybee topics. A paper has also been published in the 'Journal of Insect Physiology'.

### Combating beehive invaders and diseases, particularly Varroasis

This programme involved testing Varromed. Varromed is an organic based varroacide and it the first EU-wide registered bee medicine to be approved by the European Commission, in late 2017, this product became available to Irish Beekeepers at the end of 2017. A field trial for this bee medicine has commenced. The collection of the data (counting mites on inserts) has not been completed to date therefore this task is still ongoing. The efficacy of Varromed as an Autumn treatment will be reported by the end of this current programme.

The impact of seasonal brood interruption on the Varroa mite population and seasonal development of the colony was investigated. The trial has been completed and the data is currently being analysed as part of an international study. Ten different countries participated in this study and a total of 282 colonies were assessed as part of the trial. A preliminary report was received in June 2018 on the Irish data; however, further analysis of the data is necessary before final observations can be confirmed.

The established research apiaries have been maintained. Post winter colonies were examined in 2018 and losses were estimated at approximately 10%. In May yields were reported as average with a total of 681.18kg of oil seed rape honey harvested. For the remaining season the weather was good and yields were high. Swarm control was managed with honey harvesting and queen rearing. Over the season, 100+ colonies were maintained.

### **Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products**

Work under this measure can be categorised into two main headings: COLOSS participation and prevalence of American foulbrood in Irish honey.

A summary and evaluation of each of these elements is outlined below:

#### COLOSS Participation

Through its Apiculture Programme Ireland has monitored colony losses each year since 2008 and participated in the COLOSS Network. As part of this work each year over 10% of beekeepers affiliated to FIBKA have submitted data for analysis. This has been very useful in identifying levels of Irish over-winter colony losses have a wide range 29% in 2015/2016, 13% in 2016/2017 with average winter losses for 2017/2018 estimated to be 22.9%. Based on this data over-winter losses are having a significant impact on the productivity of the Irish beekeeping sector. Irish colony losses fluctuate from year to year, however through Ireland's participation in the COLOSS Network there is evidence that the levels of Irish over-winter losses tend to be higher than other EU



Member States. It also appears the level of over-winter losses may be related to the weather experienced the previous season. Insufficient control of Varroa may also be a contributing factor.

#### Prevalence of American Foulbrood spores in Irish Honey

Using Bacteriological analysis of honey as a means of detecting the prevalence of AFB in honeybee commenced during mid-2018. Honey has been collected from brood boxes of five colonies showing clinical symptoms of AFB. It is expected that additional honey samples will be collected. The protocol is still in development and will continue on this until the end of this current programme. Once the samples have been analysed fully a conclusion can be drawn as to if the data warrants further investigation.

## **Annex 2 – Description of the method used to determine the number of beehives**

### **For separate upload document please upload the following points re Annex 2:**

Ireland's initial method was to do a full census every 5 years and in the intervening period to do a survey. A census was conducted in 2016 and Ireland had a 46% response rate. This result was then extrapolated to represent 100% of beekeepers. Ireland now proposes to reduce the interval between census and it is now proposed to do a census every third year with a representative survey in the two intervening years to represent any changes in hives numbers. This means that a full census is due for Ireland for the period 2019/2020 (2019 colonies overwintering in 2020). Two surveys have been conducted in the period 2016/2017 and then in 2017/2018 and has shown that there has been an increase in the numbers of hives in comparison to 2016, there was approximate increase of 8.3% in 2016/2017 and 14.6% in 2017/2018.

The Beekeepers Census 2016 was conducted by the Federation of Irish Beekeepers' Associations (FIBKA) among the 3,173 members (as at September 2016) of its affiliated associations. A total of 21,390 viable honey bee colonies were carried into the winter of 2016. A total of 1,366 census forms were completed by beekeepers, and this data was used to extrapolate to the entire 3,173 membership. The census does not include beekeepers that are not members of an affiliated association, but it is thought these beekeepers have smaller-scale operations and do not contribute significantly to overall honey production in Ireland. The 2016 census is the second census of beekeepers in the Republic of Ireland, the first census being conducted by FIBKA in 2011.

There are now three representative organisations for Irish beekeepers; FIBKA, the Irish Beekeeping Association (IBA), and The Native Irish Honeybee Society (NIHBS). FIBKA represents 57 regional member beekeeping associations and currently has approximately 3,200 members. NIHBS was established in late 2012

by a group of beekeepers with the specific aim of supporting and promoting the Native Irish Honey Bee (*Apis mellifera mellifera*) throughout the island of Ireland (Republic of Ireland and Northern Ireland). NIHBS currently has approximately 400 members. Almost all of these members that are based in the Republic of Ireland are also members of FIBKA. The IBA was formed in 2017 and represents 903 members thus the IBA along with FIBKA may be included in the next census.

The 2016 Beekeepers census was conducted through FIBKA between 1<sup>st</sup> September and 31<sup>st</sup> December 2016. This determined the number of beehives ready for wintering on 1<sup>st</sup> September 2016. In accordance with Article 1 of Commission Delegated Regulation (EU) 2015/1366, for the purpose of the Census a beehive will be considered to be a hive or a nuc containing a colony of bees used for the production of honey, or honey bee breeding material, providing that colony has all elements necessary for its survival. Each FIBKA member was allocated a unique Reference No. by FIBKA to link each form to their member's database without providing the beekeeper's name and address on the form. The completed forms were then submitted to the Department of Agriculture, Food and the Marine (EU Paying Agency) for data analysis.

The form for the 2016 Beekeepers Census is given below in Appendix 1. Ireland envisages that a full census involving FIBKA's entire membership and now the IBA will be conducted every 3 years. For the intervening years Ireland will conduct a survey through FIBKA each year between 1<sup>st</sup> September and 31<sup>st</sup> December. This was conducted in the period 2016- 2017 and 2017-2018. This survey involves a representative sample (at least 5%) of FIBKA's active beekeepers at the time of the previous Census. This sample is balanced regionally and for beekeeper size to ensure it is representative of the overall beekeeping population. The results from this survey will be compared with the previous results for these beekeepers and used to extrapolate overall changes in hive numbers for the country from year to year. To ensure the figure for beehive numbers remains accurate over time it will be re-based using the data from each three year Beekeepers Census.

**Appendix 1 – Beekeeper’s Census Form 2016**

**Beekeeping Census 2016**

All information obtained in the course of this enumeration is **strictly confidential** and will be used **for statistical purposes only**. Completion is voluntary. You may choose to answer some questions only.

If you have any queries regarding completion of this form, please contact FIBKA Treasurer: Maria Tobin email [treasurer@irishbeekeeping.ie](mailto:treasurer@irishbeekeeping.ie) Mobile: 086 0888780

**PART 1 – Background Information and Hive Numbers**

Ref No \_\_\_\_\_

County / counties where you keep your bees \_\_\_\_\_

Total Number of Viable Colonies of Bees carried into this Winter (Sept. 1<sup>st</sup> 2016): \_\_\_\_\_

Number of which were      A) Full Hives: \_\_\_\_\_      B) Nuclei: \_\_\_\_\_

Total amount of honey produced this year (2016) \_\_\_\_\_ Kg

Did you produce Queens / Nucs in 2016 for sale / transfer to other beekeepers  Yes  No

If Yes, please state how many Queens: \_\_\_\_\_ Nucs: \_\_\_\_\_

### PART 2 – Honey Utilisation

Please state how your honey is utilised: -

Amount sold direct to Consumers: \_\_\_\_\_%    Amount sold direct to Retailers: \_\_\_\_\_%

Amount sold to Packers: \_\_\_\_\_%    Self consumption: \_\_\_\_\_%

### Part 3 - Future Development

From the list below, please **tick the three issues that you consider** to be most limiting development of the Irish Beekeeping sector / preventing you from increasing your number of hives.

1. Inadequate disease control / inadequate disease awareness among beekeepers.
2. Level of educational support available to beekeepers (including new / perspective beekeepers).
3. Level of support, expertise and funding provided by Department of Agriculture / Teagasc / Local Authorities.
4. Absence of bee health inspectors to diagnose disease and promote bee health.

5. Reduced biodiversity impacting on bees' ability to forage.

6. Failure to adequately promote beekeeping and to publicise the value of bees as pollinators.

7. Other (please specify): \_\_\_\_\_

#### **Part 4 – Feedback**

If you decided not to complete this census, or to complete only some questions, please outline your reason(s) below:

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**Thank you for taking the time to participate in this census.**

**Completed forms should be returned to Maria Tobin, Hon Treasurer FIBKA, Curragh, Donoughmore, Co. Cork in the enclosed Freepost envelope no later than 11/11/16.**

Annex 3

Notification of Apiculture Programme: Annex – (3) – Points (i) to (x) - A study carried out by the Member State on the producing and marketing structure in the beekeeping sector in its territory		
▶	<b>(i) The number of beekeepers</b>	3,300
▶	<b>(ii) The number of beekeepers managing more than 150 beehives</b>	5
▶	<b>(iii) The total number of beehives managed by keepers with more than 150 beehives</b>	1302
▶	<b>(iv) The number of beekeepers organised in beekeepers' associations</b>	3,173
▶	<b>(v) The annual national production of honey in kg the last 2 calendar years preceding the notification of the apiculture programme for approval : 1st year</b>	190,000 kg
▶	<b>(v) ----- ----- 2nd year</b>	257,000 kg
▶	<b>(vi) The range of prices for multi-floral honey at the site of production - Average value</b>	19.25 €/kg

▶	(vi) ----- <b>Minimum value</b>	17.60	€/kg
▶	(vi) ----- <b>Maximum value</b>	20.90	€/kg
▶	<b>(vii) The range of prices for multi-floral honey in bulk at wholesalers - Average value</b>	9.35	€/kg
▶	(vii) ----- <b>Minimum value</b>	8.80	€/kg
▶	(vii) ----- <b>Maximum value</b>	9.90	€/kg
▶	<b>(viii) The estimated average yield in kg of honey per beehive and per year</b>	20.25	kg/beehive/year
▶	<b>(ix) The estimated average production costs (fixed and variable) per kg of honey produced</b>	7.00	€/kg
▶	<b>(x) The number of beehives in the last 2 calendar years preceding the notification for approval by those Member States who did not have such a programme in place for the preceding 3 years: 1st year</b>	21,390	

▶	(x) ----- 2nd year	23,165
▶	upload document (optional)	See below

**For separate upload document please upload the following points re questions above:**

**Re Annex 3 Overall:** Figures for beekeepers with greater than 150 colonies and the total number of hives they maintain (Points II and III) are based on the 2016 Beekeeper’s Census. With the exception of Point (X) above all other values are based on Department of Agriculture, Food and the Marine estimates.

**Re Annex 3, Point (V) and Point (VIII):** Honey production in Ireland is significantly influenced by weather conditions and hence varies greatly from year to year. Output per hive each year is further influenced by the level of queen rearing being undertaken.

**Re Annex 3, Point (X):** In accordance with the transitional measures, the number of hives outlined above is as communicated in 2016 for Ireland’s 2016-2019 Apiculture Programme.

**Re Annex 3, Point (IX):** Production costs outlined above do not include the cost of long term capital investments such as investments in extraction and jarring equipment, honey houses, hives etc. Investments in these items should be spread over many production years but are not possible to quantify on an average cost per kg of honey basis. The cost outlined above includes the fixed and variable normal costs associated with producing each kilogramme of honey.



**Annex 4 - An evaluation of the needs of the sector based on an evaluation of the results of the previous apiculture programme, a study on the production and marketing structure in beekeeping sector and the outcomes of cooperation with the representative organisations in the beekeeping field.**

**For separate upload document please upload the following points re Annex 4:**

### The needs of Ireland's Apiculture Sector

Ireland's apiculture sector consists mainly of small-scale honey producers. To develop the sector there is a need for:

- Increase beekeeper awareness of disease symptoms and the importance of early detection by official laboratory diagnostics
- Provide greater scientific guidance for Irish beekeepers to improve their colony management, bee breeding, queen rearing and nutrition
- Conduct applied research on measures to potentially reduce Irish colony losses and improve bee health through diagnostic and therapeutic measures

These conclusions have been identified through an evaluation of the production and marketing structure of the Irish sector, an evaluation of the results of Ireland's previous apiculture programme as well as consultation with representative organisations in the beekeeping sector as set out below.

### Production and Marketing Structure and Background Information on Ireland's Apiculture Sector

Most Irish beekeepers maintain less than 10 hives; however there is a strong interest in taking up beekeeping with strong demand for places on beginner's beekeeping courses.

Irish honey production is significantly influenced by the weather. For example in 2014 Ireland enjoyed very favourable weather from a beekeeping perspective with an estimated total honey output of 280,000kg. However in 2015 cool, wet weather in certain parts of the country coincided with the time of the normal honey flow and honey output fell to an estimated 110,000kg. Beekeepers suffered significant overwinter losses in 2015-2016. During Summer 2016 many were focussed on re-building colony numbers which impacted on yield. In addition, while the weather was good early in the Summer the second half or June and the month of July were not as favourable estimated output of honey for this year was 151,000kg. Many beekeepers didn't harvest any honey. However a good Autumn weather meant colonies were strong going into the Winter 2016. In 2017 it was very variable year depending on geographic location. The East of the country fared reasonable well, it was a good year in the midlands but west had little or no honey extracted. Overall 70% of beekeepers were estimated to have extracted honey. For 2017 the estimated output was 190,000kg.

Despite good bio-diversity levels within their foraging environment, Irish bees appear to suffer higher levels of colony losses than bees in other EU Member States. It appears the level of Irish over-winter colony losses may be influenced by the weather in the preceding season. High colony losses in the past have resulted in certain beekeepers having to focus exclusively on rebuilding their colony numbers through queen rearing at the expense of honey production in the following season. Due to the variability in honey output there are very few full-time beekeepers in Ireland. The 2016 Beekeepers Census only identified 5 Irish beekeepers maintain over 150 hives.

Irish honey is mainly produced as liquid honey, extracted and filtered to remove debris. There is a limited production of section honey and cut comb. There is strong consumer demand for Irish honey which tends to sell at a premium price compared to imported product. Most Irish honey is sold directly from the beekeeper to the final consumer or to local retailers supplying the final consumer. Apart from seasons when there is a very good honey crop very little Irish honey is sold in bulk to honey packers or distributors. Ireland is heavily reliant on honey imported from outside the EU as well as honey produced in other EU Member States. Statistical information relating the production and marketing of Irish honey is included above under Annex 3.

There are three representative organisations for Irish beekeepers; The Federation of Irish Beekeepers' Associations (FIBKA), The Native Irish Honeybee Society (NIHBS) and the Irish Beekeepers Association (IBA)

FIBKA represents 57 regional member beekeeping associations and over the years has played a key role in promoting and developing beekeeping in Ireland. FIBKA currently has approximately 3,200 members. It runs a lecture and education programme advising members on various topics relating to beekeeping and bee health. FIBKA also runs a one-week course for beekeepers every year and provides educational exhibits at various public events during the year. The magazine, *An Beachaire* (The Irish Beekeeper) is published monthly by FIBKA and posted to all members.

NIHBS was established in late 2012 by a group of beekeepers who wished to support the various strains of Native Irish Honey Bee (*Apis mellifera mellifera*) throughout the island of Ireland (Republic of Ireland and Northern Ireland). NIHBS currently has approximately 400 members. Almost all of these members that are based in the Republic of Ireland are also members of FIBKA. NIHBS aims to raise awareness of the advantages and value of native Irish honeybees through their website as well as hosting queen rearing workshops, meetings and lectures for its members. NIHBS distributes a quarterly magazine, *The Four Seasons*, to all its members.

The IBA were established in 2017 and are thus still a relatively new Irish beekeeping organisation. It represents 24 regional associations and currently has 903 members with more joining as beginners courses are being held. The IBA have a full education program and facilitate the running of beginners courses. They have monthly webinars on various topics relating to beekeeping and bee health, with both local and internationally renowned beekeepers. All these webinars and other beekeeping "how to" videos are on our open access YouTube channel. They are involved in the Transitional Year Environmental hub

where we will have a stand and be educating the transitional year students on the importance of pollinators. The IBA provide a bi monthly e-magazine with content on practical bee advice, recent research and our webinars, to anyone who subscribes, not only our members.

In Ireland many beekeepers are small scale operators that have commenced beekeeping in recent years and as such are relatively inexperienced. While beekeepers are willing to help other beekeepers this advice can often be based on hearsay or their own personal experience rather than scientific or formal training. There are no trained advisers to assist Irish beekeepers. There is a need to train local trainers in best practice and general bee husbandry so they can provide standardised training especially to relatively new beekeepers.

### Evaluation of Ireland's previous apiculture programme

As notified in 2016, the measures for Ireland's Apiculture Programme 2016-2019 were:

The measures of Ireland's 2016-2019 Apiculture Programme were to:

- Technical assistance to beekeepers and beekeepers' organisations □ Combating beehive invaders and diseases, particularly Varroasis
- Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products.

Total funding available for Ireland's Apiculture Programme 2016-2019 was just over €72,000 per year. In order to maximise the return on these funds specialised research bodies were invited to submit detailed programme implementation proposals. All funding was awarded to the one successful research body which is working in collaboration with a number of other research institutions at zero cost to the Programme. While the current programme will not conclude until August 2019 it is possible at this stage to provide an interim evaluation of its outcomes. This is set out below:

### Technical assistance to beekeepers and beekeepers' organisations

There has been strong dissemination of information on good practice and the Programme's findings to the beekeeping communities. A website has been developed and made available to the public and will be updated with publications ([www.nationalapicultureprogramme.info](http://www.nationalapicultureprogramme.info)). A lecture programme is being developed for the beginner beekeepers. This programme will contain formal lectures and practical elements. Oral presentations and workshops on many

aspects of honeybee health are given frequently to local beekeeping and national beekeeping associations. Articles are published frequently in the national beekeeping magazine, *an Beachaire*, on relevant honeybee topics. A paper has also been published in the 'Journal of Insect Physiology'.

#### Combating beehive invaders and diseases, particularly Varroasis

This programme involved testing VarroMed. VarroMed is an organic based varroacide and it is the first EU-wide registered bee medicine to be approved by the European Commission, in late 2017, this product became available to Irish Beekeepers at the end of 2017. A field trial for this bee medicine has commenced. The collection of the data (counting mites on inserts) has not been completed to date therefore this task is still ongoing. The efficacy of VarroMed as an Autumn treatment will be reported by the end of this current programme.

The impact of seasonal brood interruption on the Varroa mite population and seasonal development of the colony was investigated. The trial has been completed and the data is currently being analysed as part of an international study. Ten different countries participated in this study and a total of 282 colonies were assessed as part of the trial. A preliminary report was received in June 2018 on the Irish data; however, further analysis of the data is necessary before final observations can be confirmed.

The established research apiaries have been maintained. Post winter colonies were examined in 2018 and losses were estimated at approximately 10%. In May yields were reported as average with a total of 681.18kg of oil seed rape honey harvested. For the remaining season the weather was good and yields were high. Swarm control was managed with honey harvesting and queen rearing. Over the season, 100+ colonies were maintained.

#### **Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products**

Work under this measure can be categorised into two main headings: COLOSS participation and prevalence of American foulbrood in Irish honey.

A summary and evaluation of each of these elements is outlined below:

##### COLOSS Participation

Through its Apiculture Programme Ireland has monitored colony losses each year since 2008 and participated in the COLOSS Network. As part of this work each year over 10% of beekeepers affiliated to FIBKA have submitted data for analysis. This has been very useful in identifying levels of Irish over-winter colony losses have a wide range 29% in 2015/2016, 13% in 2016/2017 with average winter losses for 2017/2018 estimated to be 22.9%. Based on this data over-winter losses are having a significant impact on the productivity of the Irish beekeeping sector. Irish colony losses fluctuate from year to year, however through Ireland's participation in the COLOSS Network there is evidence that the levels of Irish over-winter losses tend to be higher than other EU

Member States. It also appears the level of over-winter losses may be related to the weather experienced the previous season. Insufficient control of Varroa may also be a contributing factor.

#### Prevalence of American Foulbrood spores in Irish Honey

Using Bacteriological analysis of honey as a means of detecting the prevalence of AFB in honeybee commenced during mid-2018. Honey has been collected from brood boxes of five colonies showing clinical symptoms of AFB. It is expected that additional honey samples will be collected. The protocol is still in development and will continue on this until the end of this current programme. Once the samples have been analysed fully a conclusion can be drawn as to if the data warrants further investigation.

#### Outcome of co-operation with representative organisations in the beekeeping field

Ireland's Department of Agriculture, Food and the Marine engaged with FIBKA, IBA and NIHBS before preparing Ireland's application for the 2019-2022 Apiculture Programme.

Stakeholders were contacted on the 20/11/2018 to seek their input into the application for 2019-2022 programme. Following this consultation a number of written submissions were received:

The written submission from NIHBS was considered and it sought measures focussed on promoting and supporting conservation of the native Irish honeybee (*Apis mellifera mellifera*) but also on combating Varroa and American foulbrood. Within their proposed list the most appropriate suggestion was support for training workshops on topics such as breeding and disease prevention and finding measures to help combat Varroa and American Foulbrood.

The IBA's written submission stated that technical assistance in the form of providing training for beekeepers on topics such as breeding or diseases prevention. The submission also considered the application for the 2019-2022 programme should include work on combating Varroasis. IBA also considered the rationalisation of transhumance was important both for pollination and for bee nutrition; however this was not considered a priority by NIHBS and FIBKA and thus will be not considered within this current application.

FIBKA's written submission stated that there was a need to educate beekeepers to identify diseases in their colonies. Lectures on identifying colony diseases and practical sessions were seen as essential as there is a great need to be able to identify the symptoms of American foulbrood. It was felt by FIBKA that lectures are insufficient to impart information about the identification of diseases within the colony. They also felt that it would be useful to hold train-the-trainer workshops.

Another suggestion from FIBKA was awareness raising relation to the Asian hornet, providing compensation for the re-stocking of hives after a case of AFB and carrying out a survey determining the age profile of beekeepers. It was felt that their first measure was most relevant for the next Apiculture Programme.

The consultation between the Department of Agriculture, Food and the Marine with the NIHBS, IBA and FIBKA concluded Ireland's next programme should include the following measures:

- **technical assistance:** training for beekeepers and group of beekeepers, on topics such as breeding or disease prevention, extraction, storage, packaging of honey etc.;
- **combating beehive invaders and diseases, particularly varroasis;** Varroa is an endemic parasite, weakening a bee's immune system and leading to the loss of bee colonies if not treated;
- To co-operate with specialist bodies for the implementation of **applied research** programmes in the field of beekeeping and apiculture products

**Annex 5 – A description of the objectives for the programme and the link between these objectives and the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No. 1308/2013.**

**For separate upload document please upload the following points re Annex 5:**

The objectives of Ireland's 2019-2022 Apiculture Programme are to:

- Increase beekeeper awareness of disease symptoms and the importance of early detection by official laboratory diagnostics
- Provide greater scientific guidance for Irish beekeepers to improve their colony management, bee breeding, queen rearing and nutrition
- Conduct applied research on measures to potentially reduce Irish colony losses and improve bee health through diagnostic and therapeutic measures

These objectives will be achieved through implementing the following measures as set down in Article 55(4) of Regulation (EU) No. 1308/2013:

- **technical assistance:** training for beekeepers and group of beekeepers, on topics such as breeding or disease prevention, extraction, storage, packaging of honey etc.;
- **combating beehive invaders and diseases, particularly Varroasis;** Varroa is an endemic parasite, weakening a bee's immune system and leading to the loss of bee colonies if not treated;
- Cooperation with specialist bodies for the implementation of **applied research** programmes in the field of beekeeping and apiculture products

Annex 6

<b>Annex – (6)</b> - A detailed description of the actions which will be carried out under the apiculture measures selected in the list in Article 55(4) of Regulation (EU) No 1308/2013, including the estimated costs and a financing plan broken down by year and by measure							
■		<b>Next year</b>		<b>The year after</b>		<b>And the year after</b>	
▶	<b>(a) Technical assistance to beekeepers and beekeepers' organisations</b>	*5,000	€	*5,000	€	*5,000	€
▶	<b>(b) Combating beehive invaders and diseases, particularly Varroasis</b>	*5,000	€	*20,000	€	*5,000	€
▶	<b>(c) Rationalisation of transhumance</b>	0	€	0	€	0	€
▶	<b>(d) Measures to support laboratories for the analysis of apiculture products</b>	0	€	0	€	0	€
▶	<b>(e) Restocking of hives</b>	0	€	0	€	0	€
▶	<b>(f) Applied research programmes</b>	*80,000	€	*65,000	€	*80,000	€



▶	<b>(g) Market monitoring</b>	0	€	0	€	0	€
▶	<b>(h) Enhancement of product quality</b>	0	€	0	€	0	€

\*Please note these are approximate figures

### Detailed description of the actions under the measures selected.

#### **For separate upload document please upload the following points re Annex 6:**

The objectives of Ireland's 2019-2022 Apiculture Programme are to:

- Increase beekeeper awareness of disease symptoms and the importance of early detection by official laboratory diagnostics
- Provide greater scientific guidance for Irish beekeepers to improve their colony management, bee breeding, queen rearing and nutrition
- Conduct applied research on measures to potentially reduce Irish colony losses and improve bee health through diagnostic and therapeutic measures

These objectives will be achieved through implementing the following measures as set down in Article 55(4) of Regulation (EU) No. 1308/2013:

- **technical assistance:** training for beekeepers and group of beekeepers, on topics such as breeding or disease prevention, extraction, storage, packaging of honey etc.;
- **combating beehive invaders and diseases, particularly Varroasis;** Varroa is an endemic parasite, weakening a bee's immune system and leading to the loss of bee colonies if not treated;
- Cooperation with specialist bodies for the implementation of **applied research** programmes in the field of beekeeping and apiculture products.

In order to maximise the return on expenditure for the programme, specialised research bodies will be invited to submit detailed programme implementation proposals. The aim is to have experts in the field of apiculture and research techniques devise the programme of work to put the measures into operation and achieve Ireland's stated objectives.

Selection of the successful specialised body (or bodies) to implement the programme will be on the basis of a panel of expert evaluators who will use criteria such as: experience, knowledge and track record of the specialised body; quality of proposals; originality and degree of innovation; adequacy of the approach, methodology and work plan; dissemination plans; benefits to be derived from successful outcome; contribution of the work to the improvement of the apiculture sector and value for money.

An overview of the work proposed under each measure is outlined below.

### [Technical assistance to beekeepers and beekeepers' organisations](#)

In Ireland many beekeepers are small scale operators that have commenced beekeeping in recent years and as such are relatively inexperienced. While beekeepers are willing to help other beekeepers this advice can often be based on “hearsay” or their own personal experience rather than scientific or formal training. There are no trained advisers to assist Irish beekeepers. There is a need to train local trainers in best practice and general bee husbandry so they can provide standardised training especially to relatively new beekeepers. Beekeepers need assistance, particularly new inexperienced beekeepers, training in maintaining their colonies and how best to manage diseases. Knowledge transfer (KT) programmes will be held for beekeepers nominated by Ireland’s beekeeping associations. Among other issues, KT will include modules on general bee husbandry, identification, sampling and treatment of bee diseases, queen rearing and swarm control as well as the safe production and appropriate labelling of honey. This KT programme will involve both theory and practical elements.

Other objectives under this measure are to disseminate information on good practice and the programme findings to the beekeeping communities. Information will be disseminated through frequent lectures at national and local level, submission of articles in beekeeping magazines and if applicable peer reviewed journals. Webinars would be used as another way of dissemination. Technical assistance costs will arise from KT programme costs, purchase of equipment, meetings with beekeepers as well as presentations to beekeeping associations and the publication of information booklets and/or manuals on bee diseases and good husbandry practices.

## Combating beehive invaders and diseases, particularly Varroasis

### Varroa

Alternative control methods for Varroa need to be investigated as Varroa still continues to be a serious problem for honeybee colonies. There is a need to look at alternative control methods for Varroa with a view to reducing the dependency on chemical treatments. Under the 2016-2019 programme Irish Apiculture Programme preliminary trials were conducted on combining management techniques with organic acids treatments, Management techniques for the control of Varroa and combining this with the use of organic acid treatments should be trialled further to determine their efficacy and how they can be maximised and whether a follow-up winter treatment is necessary. Irish context research is warranted in identifying predictors of Varroa resistance to current treatments and best for Integrated Pest Management programmes for Varroa in Ireland.

An important part of controlling Varroa post trial is the dissemination of information gathered to beekeepers, this could be in the form of how best to control Varroa based on the results of the trial and could include education and training and integrating this information into a national syllabus.

### Nutrition

In order to combat beehive invaders and diseases it is very important the colony and thus it will be less susceptible. Good nutrition could potentially improve the overall health, strength and vitality of stocks. Assessing the potential role of good nutrition in reducing colony losses and improving the overall health and vitality of stocks should be investigated with a view to providing information to beekeepers on how to keep their honeybees healthy through correct nutrition. As part of this study it is proposed that it concentrates on the study of pollen availability and floral diversity and the benefits of feeding pollen supplements.

## Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products

Proposed work under this measure is categorised under the following headings: COLOSS Participation and Prevalence of American Foulbrood spores in Irish Honey and conducting AFB survey. Each element is outlined below:

### COLOSS Participation and the Impact of Weather on Irish Colony Losses

Through its Apiculture Programme Ireland has monitored colony losses each year since 2008 and participated in the COLOSS Network. Based on this research over-winter losses are having a significant impact on the productivity of the Irish beekeeping sector. There is evidence that the levels of Irish overwinter losses tend to be higher than other EU Member States. It also appears the level of over-winter losses may be related to the weather experienced the previous season. Given the success of this work and strong voluntary beekeeper engagement, Ireland believes it is vital to continue this work in the future programme to build more information and further explore the reasons for these losses.

This aspect of the Irish Apiculture Programme will continue Ireland's participation in the COLOSS Network as well as collection of information on Irish colony losses and will, where appropriate, seek to establish possible reason(s) for these losses. In addition Irish data collected since 2008 will be compared with meteorological data over this period in an effort to establish if there is a relationship between Irish weather conditions and subsequent colony losses. If a relationship can be established it may then be possible to advise beekeepers on specific management practices which could reduce the risk of future losses occurring.

#### Prevalence of American Foulbrood spores in Irish Honey and AFB survey

American Foulbrood is a notifiable disease in Ireland, however it appears many cases of the disease are not reported and may not even be detected by Irish beekeepers. In an effort to establish the true incidence of the disease it is proposed to conduct a national survey to screen samples of Irish honey for the presence of American Foulbrood spores. Each beekeeper that submits a sample(s) of their honey will be notified of their result. This will encourage beekeepers with honey that has tested positive for the presence of American Foulbrood spores to be vigilant for symptoms of the disease in their hives and to submit samples for official laboratory diagnosis. Results will also be pooled for publication purposes. If the programme establishes there is a high incidence of American Foulbrood spores it should encourage all Irish beekeepers to be more vigilant for symptoms of the disease and to submit samples where appropriate. American foulbrood remains a serious problem in Ireland for the beekeeping community but there is a lack reliable data on its prevalence, this makes it difficult to control and difficult to quantify rate of incidence of this disease among honeybee colonies in Ireland.

## Annex 7 – Criteria used to establish there is no double funding

### **For separate upload document please upload the following points re Annex 7:**

Ireland's Apiculture Programme doesn't provide aid directly to individuals and is based around a research programme so there is a low risk of overlap with other EU / Nationally funded schemes. This risk will be further reduced by a requirement for research institutions to submit a written declaration as part of their application for funding which will confirm:

- A) Whether they have previously submitted the proposal or a similar proposal, in part or in full, to the Department of Agriculture, Food and the Marine or any other funding body, and
- B) Whether they are currently submitting the proposal or a similar proposal, in part or in full, to any other funding body.

Selection of the successful specialised body (or bodies) to implement the programme will be on the basis of a panel of expert evaluators. These expert evaluators should be aware of any other potential funding streams for the proposed work. As part of the evaluation process they will be required to identify any risk regarding dual funding.

As a final precaution against the risk of double funding, the conditions of the contract awarded to the successful specialised body (or bodies) will include a provision for the aid to be revoked or reduced in a number of possible situations including where elements of the project being funded are duplicate funded from another source.

**Annex 8 – Performance indicators used for each apiculture measure selected. Member States shall select at least one relevant performance indicator per measure.**

**For separate upload document please upload the following points re Annex 8:**

At least one Performance Indicator will be used to monitor progress under each measure as set out below. Further performance indicators may also be added by specialised research bodies when they submit detailed programme implementation proposals.

Measure	Performance Indicator
Technical assistance to beekeepers and beekeepers' organisations	<ul style="list-style-type: none"> <li>• Level of dissemination to beekeepers regarding programme findings and information.</li> <li>• Successful implementation of a KT programme for beekeepers</li> </ul>
Combating beehive invaders and diseases, particularly Varroasis	<ul style="list-style-type: none"> <li>• Alternative Varroa treatments subjected to trials to establish their efficacy and tolerability under Irish conditions.</li> <li>• Trial on benefits of good nutrition</li> </ul>
Cooperation with specialised bodies for the implementation of applied research programmes in the field of beekeeping and apiculture products	<ul style="list-style-type: none"> <li><input type="checkbox"/> Number of research trials conducted as part of the programme</li> <li><input type="checkbox"/> Number of beekeepers participating in annual COLOSS Survey</li> <li><input type="checkbox"/> Establishing an AFB survey.</li> </ul>

Annex 9

<b>Annex – (9) - Implementing arrangements of the apiculture programme – see answers below</b>		
	<b>(i) Contact point responsible for the management of the apiculture programmes (upload document)</b>	No document selected
▶	<b>(ii) Description of the procedure for monitoring checks (upload document)</b>	No document selected
▶	<b>(iii) Description of the actions to be taken in case of undue payments to the beneficiaries, including the penalties (upload document)</b>	No document selected
▶	<b>(iv) The provisions to ensure that the approved programme is publicised in the Member State (upload document)</b>	No document selected
▶	<b>(v) The actions taken to cooperate with representative organisations in the beekeeping field (upload document)</b>	No document selected
▶	<b>(vi) Description of the method used to evaluate the results of the measures of the apiculture programme (upload document)</b>	No document selected

**For separate upload document please upload the following points re Annex 9:**

**Point (I)** Ireland’s contact point for the Apiculture Programme is:

Horticulture and Plant Health Division, Department of Agriculture, Food and the Marine, Backweston Campus, Celbridge, Co. Kildare, Ireland. Email:

[Beekeeping@agriculture.gov.ie](mailto:Beekeeping@agriculture.gov.ie)

**Point (II)** Each year, financial claims will be subject to administrative and documentary checks. Reporting will be as agreed with the bodies carrying out the work; account will have to be taken of the seasonal nature of the work. It's envisaged that progress reports will be required on a six monthly basis. These reports will be subject to detailed scientific and technical evaluation to monitor progress. In addition a comprehensive final report(s) covering each aspect of the Programme will also be evaluated at the end of the programme.

For each body involved in implementing the Programme an on-the-spot inspection will take place at least once over the course of the three year programme.

**Point (III)** To reduce the risk of undue payments aid will issue in arrears and only when checks on financial claims have concluded. Furthermore the conditions of the contract awarded to the successful specialised body (or bodies) will include a provision for the beneficiary to reimburse any overpaid amounts with interest as required under EU legislation.

**Point (IV)** Details regarding the Programme will be publicised on the Department of Agriculture, Food and the Marine's website: [www.agriculture.gov.ie](http://www.agriculture.gov.ie) In addition, there will be a strong emphasis on dissemination of Programme findings and information to the beekeeping community through oral presentation to beekeeping associations and beekeeper's conferences, publication of articles in beekeeper's magazines as well as likely submission of research papers to international peer review.

The conditions of the contract awarded to the successful specialised body (or bodies) will include requirements for:

- 1.) Any publication or other information relating to the programme to acknowledge the work was co-funded by the European Commission and the Department of Agriculture, Food and the Marine under Ireland's National Apiculture Programme 2019-2022 and.
- 2.) The logos for both the European Union and the Department of Agriculture, Food and the Marine should be included on all signs and on all advertisements, information publicity material and publications relating to the Programme in the same manner, in terms of size and prominence, as other logos used



**Point (V)** Ireland's Department of Agriculture, Food and the Marine engaged with The Federation of Irish Beekeepers' Associations (FIBKA), The Native Irish Honeybee Society (NIHBS) and Irish Beekeepers Association (IBA) before preparing Ireland's application for the 2019-2022 Apiculture Programme. Each organisation was consulted on the Apiculture Programme and written submissions were received from each group.

**Point (VI)** Reporting will be as agreed with the bodies carrying out the work; account will have to be taken of the seasonal nature of the work. It's envisaged that progress reports will be required on a six monthly basis. These reports will be subject to detailed scientific and technical evaluation to monitor progress under each measure. In addition a comprehensive final report(s) covering each aspect of the Programme will also be evaluated at the end of the programme.

Each year, financial claims will be subject to administrative and documentary checks. For each body involved in implementing the Programme an on-the-spot inspection will take place at least once over the course of the three year programme.

Ends.

Horticulture & Plant Health Division

15/03/2019