

# **ENTOMELA 50SL/ENT 50**

## **DOCUMENT M-CP, Section 6**

### **EFFICACY DATA**

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## CP 6 EFFICACY DATA

### CP 6.1 Preliminary range-finding tests - Minimum effective dose tests

Preliminary data for ENTOMELA 50 SL is not considered necessary.

Similar products are in agricultural practice for more than 30 years please see section CP 6.3.

ENTOMELA 50 SL has been registered in Greece for 20 years (since 1994) as insect attractant for bait applications for the control of olive fruit fly (*Bactrocera oleae*) in olive trees.

### CP 6.2 Efficacy tests

A review study about the evolution of the formulations used in Greece and the efficacy data published by several scientists during all these years was prepared by N. G. Stavrakis - PHYTOPHYL with the title:

***REVIEW OF EFFICACY DATA OF INSECT ATTRACTANT FORMULATIONS (ENTOMELA 75SL, DACUS BAIT 100, AND ENTOMELA 50SL) USED IN BAIT SPRAYS FOR THE CONTROL OF THE OLIVE FRUIT FLY *Bactrocera oleae* IN GREECE.***

The translated text in English is presented here as a summary on efficacy.

#### **Introduction**

This study aims to show the progress and the efficacy data of insect attractants used for the control of *Bactrocera oleae* in Greece. For more than fifty years, great efforts were made to improve the methodology of bait sprays by many researchers.

These efforts were successful and the result was the production and the use of three insect attractant formulations “ENTOMELA 75 SL”, “DACUS BAIT 100”, “ENTOMELA 50 SL” for thirty years on a nationwide scale in Greece.

There are plenty of reliable experimental data on the effectiveness of these domestic insect attractants formulations in combination with currently used insecticides in bait sprays applications against the olive fruit fly. Recent experimental trials at the Institute of Olive Tree and Subtropical Plants showed satisfactory efficacy for these three products.

#### **History - Background**

Before WWII the control of olive fruit fly was done mainly with Berlese method. The attractant used was the molasses combined with sodium arsenite as insecticide in bait. First time in 1939 *McPhail* notes the strong attractiveness of hydrolysed proteins in *Dacus cucurbitae* and *Ceratitis capitata*. In late 1950, Orphanides finds strong attractiveness of hydrolysates and reports an up to 35 times stronger attraction than that of baits with molasses. All these resulted in the beginning of the use of hydrolysed proteins in combination with organophosphate insecticides for the control of olive fruit fly and other fruit flies.

Great efforts were made to improve the methodology of bait sprays by many researchers <sup>(1)</sup> (ORFANIDIS SOULTANOPOULOS-1962), for the investigation and explanation of attractiveness <sup>(2)</sup> (ORFANIDIS-KALMOUKOS 1968) and for field evaluation of different hydrolysates in order to measure their attractiveness and develop better attractant formulations <sup>(3)</sup> (STAVRAKIS AND ASSOCIATES 1970). The production and use of attractant formulations in Greece was first proposed by the department of entomology of BPI as a result of this research activity.

Further experimental research in applications with traps and applications on bait sprays with insecticides used that time, showed not only equivalence but also higher effectiveness of domestic formulations than that of the formulations imported like Staley 7, Buminal, e.t.c.

The result was the creation of two Greek production plants for such formulations during the 70s. These production plants used domestic and other raw materials to produce attractants for the olive fruit fly, with very good results in the control of this insect. Two products of this era were DACUS BAIT and ENTOMOSYL.<sup>(4)(5)</sup> (ZERVAS 1982, SOULTANOPOULOS 1983).

In early 1980s two new formulations of the same production plants appeared, namely DACUS BAIT 100 and DACONA. These formulations have been tested and used for the control of *B. oleae* in Greece at nationwide scale<sup>(6)</sup> (KALMOUKOS et. al.1989).

### **Current State**

Today the registered products and primarily used in Greece are:

A) DACUS BAIT 100 (is an improved product similar to DACUS BAIT) produced and marketed by EVYP.

B) ENTOMELA 75 SL (is the same product as DACONA) produced and marketed by PHYTOPHYL.

C) ENTOMELA 50SL which is a product with modified and improved synthesis similar to ENTOMOSYL (marketed by Hoechst-Hellas) with the same content in active ingredients and which is produced and marketed by PHYTOPHYL.

These companies supply the Greek Ministry of Rural Development and Food with these three formulations which are used for the control of the olive fruit fly with bait sprays for more than thirty years.

### **Efficacy data**

The efficacy of these formulations has concerned the scientific community and there are a number of bibliographic data with comparative efficacy trials of these preparations, and many comparative experiments about attractiveness in traps or bait sprays.

Zervas in 1982<sup>(4)</sup> and 1985<sup>(7)</sup> and Soultanopoulos in 1983<sup>(5)</sup> and 1986<sup>(8)</sup> indicated the strong attractiveness of ENTOMOSYL.

Kalmoukos in 1989<sup>(6)</sup> in experiments in Crete and Samos for ten years in collaboration with the Directorates of Agriculture, investigated and demonstrated the effectiveness of three domestic formulations DACONA, DACUS BAIT 100, ALMA DACUS (this formulation is no longer registered and is similar to ENTOMOSYL and ENTOMELA 50 SL). In particular, they investigated the issue of dosage and other properties of the formulations and they clarified the issue of dose of the attractants (2% for low volume ground applications).

These formulations have entered since then in the agricultural practice and have been used successfully until today in bait sprays from state and private entities. They are mentioned in many books and articles concerning olive tree and the control of olive fruit fly.<sup>(9)(10)(11)(12)</sup> (Broumas 1994 & 1996, Ziogas 1996 and Yiamvrias 1998).

Research on method of usage, action, properties and the comparison between the insect attractants continued in the coming decades.<sup>(13)(14)(15)</sup> (ROKOFYLOU 1991, FITSAKIS 1997 TOMAZOS 1999).

The effort for better treatment and for reduced use of pesticides led the research activity to find equivalent methods with fewer burdens on the environment <sup>(16) (17) (18)</sup> (ZERVAS 1991, ZERVAS 1997, STAVRAKIS 2001). The use of attractants in liquid traps, or traps of open surfaces with glue or insecticide, was tested and compared and in many cases found as effective as the method of bait spray, especially when the *B.oleae* population was not very high. <sup>(19) (20) (21)</sup> (BROUMAS AND ASSOCIATES 1990, BROUMAS-CHANOTAKIS 1994, BROUMAS 1991).

Besides the work in olive fruit fly, many researchers investigated the attractiveness of the formulations to the Mediterranean fruit fly <sup>(22) (23) (24)</sup> (ZERVAS 1995, TOMAZOS 1995 and 1999). In comparisons made with SPINOSAD it was found that ENTOMELA outweighed over the other two BUMINAL and SOLYLYS. <sup>(25)</sup> (MAYRIKAKIS 2001).

The Institute of Olive and Subtropical Plants of Chania for ten years in the context of the work "Comparative experimental work to control the olive fruit fly" which was entrusted by the Ministry of Rural Development and Food, did experimentation for the evaluation of insecticides used in bait sprays. During this experimentation, in the years 2005 and 2006 the pyrethroid insecticides a-cypermethrin, l-cyhalothrin, deltamethrin, and spinosad were tested in bait sprays. The percentage of the total infestation was low with no significant differences between the insecticides. <sup>(26)</sup> (KALAITZAKI et. al. 2007).

In evaluation studies of insect-attractants used in bait sprays, the attractiveness of the three Greek formulations (DACUS BAIT 100, ENTOMELA 50 SL, ENTOMELA 75 SL) was compared with ammonium sulfate, the sex pheromone, and *Saccharopolyspora spinosa* solutions (Success). In the first year a capture superiority of these formulations was observed, compared to ammonium sulfate and pheromone. In the second year, these formulations were tested without insecticides and in combination with insecticides and again the capture superiority was observed compared to ammonium sulphate and *Saccharopolyspora spinosa* solutions (Success) <sup>(27)</sup> (VARIKOU et. al. 2011). The superiority compared to ammonium sulfate and sex pheromone had been observed also in previous experiments with the same insect-attractants in Crete <sup>(28)</sup> (ALEXANDRAKIS 2005), and in the region of Agrinio with attractiveness experiments of DACUS BAIT 100 and ENTOMELA 50 SL where both seemed to outweigh against ammonium sulfate. <sup>(29)</sup> (FEZOS 2009)

Experiments were conducted in 2010 <sup>(30)</sup> (AGROLAB 2010) at the Institute of Olive Tree and Subtropical Plants and three formulations DACUS BAIT 100, DACUS BAIT NEW, and ENTOMELA 75SL were tested extensively with the following conclusions:

- a) In comparison of these formulations with SUCCESS and ammonium sulphate inside McPhail glass traps, did not observed significant difference in efficacy between them and seemed superior against ammonium sulphate and SUCCESS.
- b) Their efficacy when used in traps and combined with insecticides (KARATE & FASTAC) decreased compared to the efficacy when used alone.
- c) In all cases their combination with insecticides seemed slightly better than SUCCESS but without statistically significant difference.
- d) The duration of action in experiments with sponge traps ranged from 18-36 days.

Apart from the numerous literature data mentioned above and the recent 2010 study there are some indirect data demonstrating the effectiveness of the three Greek preparations

- a) In the archives of the MRDF exist all efficacy data on pesticides that were licensed for bait sprays in combination with the above insect attractant formulations. From these files and from the "Comparative experimental work for the control of olive fruit fly" entrusted by the MRDF, we can draw valuable

conclusions about the efficacy of each attractant composition and their combination with registered insecticides.

b) SUCESSS as concentrated bait and the other premixed-insecticide-baits which have been registered ECOTRAP, DAKOFAKA were compared to bait sprays with the same attractants and one of them DAKOFAKA uses ENTOMELA 75SL as attractant.

### **Conclusions**

There are plenty of reliable experimental data on the efficacy of domestic insect attractant formulations in combination with the currently used insecticides on bait spray applications against the olive fruit fly.

They are used for thirty years with satisfactory results throughout the Greek territory and have been assessed previously and modern, with perennial experimentation <sup>(6)</sup> <sup>(26)</sup> <sup>(27)</sup> (KALMOUKOS 1989, KALAITZAKI 2007, VARIKOU 2011) in the framework program of the Ministry of Rural Development and Food.

When attempting to evaluate the efficacy of these insect attractants should be given special attention to two points:

a) The efficacy of an insect attractant formulation in bait spray application is influenced by the presence of the insecticide used because it affects the combined efficacy of attractant-insecticide.

For example, the different repellency on some of the insecticides, it is possible to affect the action of the bait <sup>(31)</sup> (ORFANIDIS KALMOUKOS 1979). This combined efficacy can be influenced also by the different resistance of *B. oleae* to insecticides. <sup>(32)</sup> (CHRYSGYRIS 2011).

b) The efficacy of insect attractants in traps without insecticide is a result of their capability to attract. In recent attractiveness tests of mixtures with insecticide formulations used in control applications, appeared reduced attractiveness compared to the attractiveness when used the attractants alone. <sup>(27)</sup><sup>(30)</sup> (VARIKOU 2011 STUDY AGROLAB 2010).

PHYTOPHYL submit a DRR for ENTOMELA 50SL on 2015 according to reg. 1107/2009 and below are the comments of zRMS on Efficacy tests section:

<p>Reviewer's comments: IIIA1 6.1.3 Olive trees – olive fruit fly (<i>Bactrocera oleae</i>)</p>	<p>The applicant submitted the above-cited review report of various studies/reports concerning the control of olive fruit fly (<i>Bactrocera oleae</i>) and the contribution of hydrolyzed proteins (including ENTOMELA 50 SL) to this purpose.</p> <p>Olive tree crop is one of the most important crops in Greece and olive fruit fly (<i>Bactrocera oleae</i>) its most serious insect pest.</p> <p>The main method used in Greece for the control of this pest is bait sprays. It is a preventive method of control, which has been used since 60's. Bait sprays are large-scale applications conducted under the supervision of the Hellenic Ministry of Rural Development and Food (MRDF).</p> <p>ENTOMELA 50 SL is an insect attractant that has been registered in Greece for 20 years (since 1994) <b>for use in bait applications for the control of olive fruit fly in olive trees.</b></p> <p>A lot of research has been carried out in Greece concerning the attractiveness of various baits (including ENTOMELA 50 SL) used in bait applications. Many of the research programs have been conducted under the supervision of the MRDF.</p> <p>In addition, ENTOMELA 50 SL has been used in studies with insecticides intended to be registered for bait applications for the control of olive fruit fly.</p>
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Apart from the review report, the applicant submitted three (3) studies conducted by AGROLAB S.A. for the company EVYP MICHAILIDES. A letter of access to these studies has also been submitted.

These studies were conducted by GEP certified testing units.

### **GEP Study 1**

A GEP study to evaluate the attractiveness of olive fruit fly food attractants in various dose rates was submitted (July 2010-November 2010). This trial was carried out at an experimental olive grove consisting of trees of the variety Koroneiki in the area of Nohia (Prefecture of Chania) of Crete Island, located in Southern Greece.

The experimental field covered an area of 10 stremmas (=1 ha) and consisted of 250 olive trees. The planting distance was 7x7m and the percentage of fructification was approximately 80%. The experimental design used in these trials was the Randomized Complete Block Design with 4 replicates.

For the evaluation of the attractiveness of the tested attractants McPhail glass traps were used. The distance between the traps was 20m to avoid interaction between the attractants. Every 3 days the attractant solution was renewed, the location of the traps was rotated (so that each trap was placed in all trees-locations and fly captures were not affected by the location of the trap) throughout the experiment. The attractiveness was assessed as captures in the traps, hence the adult flies caught were counted and transported to the laboratory, where they were separated according to sex.

The following food attractants were tested:

DACUS BAIT 100 (at 2, 2.5 and 3%), ENTOMELA 75 (at 2, 2.5 and 3%), AMMONIA (at 2%) and water (untreated control).

No significant differences were observed in the number of fly captures between the various attractants and doses. Significantly more flies were caught in the traps with the attractants compared to traps with water (untreated control) throughout the trial period (late September to 1<sup>st</sup> November).

### **GEP Study 2**

A GEP study to evaluate the attractiveness of olive fruit fly food attractants for bait spraying was submitted (July 2010-November 2010). This trial was carried out at an experimental olive grove consisting of trees of the Kalamon variety in the area of Nerokourou (Prefecture of Chania) of Crete Island, located in Southern Greece.

The experimental field covered an area of 10 stremmas (1 ha) and consisted of 250 olive trees. The planting distance was 7x7m and the percentage of fructification was approximately 80%. The experimental design used in this trial was the Randomized Complete Block Design with 3 replicates.

For the evaluation of the attractiveness of the tested attractants McPhail glass traps were used. The distance between the traps was 20m to avoid interaction between the attractants. Every 3 days the attractant solution was renewed, the location of the traps was rotated (so that each trap was placed in all trees-locations and fly captures were not affected by the location of the trap) throughout the experiment. The attractiveness was assessed as captures in the traps, hence the adult flies caught were counted and transported to the laboratory, where they were separated according to sex.

The following attractants were tested either on their own or in combination with approved pesticides used in glass traps:

DACUS BAIT 100 (2%)

DACUS BAIT 100 (2%) + FASTAC (300 ml/hl)

DACUS BAIT 100 (2%) + KARATE (125 ml/hl)

	<p>ENTOMELA 75 (2%)  ENTOMELA 75 (2%)+ FASTAC (300 ml/hl)  ENTOMELA 75 (2%) + KARATE (125 ml/hl)  Ammonia (2%)  Water  SUCCESS (3.7 l/hl).</p> <p>The highest number of fly captures was observed in the tested attractants without pesticides and, specifically, in DACUS BAIT 100 (9.88 flies/trap/three-day period) and ENTOMELA 75 (8.65 flies/trap/three-day period) compared to ammonia, SUCCESS and water. Furthermore, upon the addition of a pesticide to the attractant solutions, a significant decrease in their attractiveness was observed. Specifically, the addition of pesticides reduced the attractiveness of the tested attractants 4 to 5 times.</p> <p>In conclusion, DACUS BAIT 100 and ENTOMELA 75 showed the highest attractiveness, which was significantly reduced up to approximately 5 times with the addition of pesticides. All the tested (pure) proteins were approximately 5 times more attractive compared to the ammonia solution.</p> <p><b>GEP Study 3</b></p> <p>A GEP study to evaluate the attractiveness of olive fruit fly food attractants and the duration of attraction of the tested attractants with or without pesticide in summer and autumn (4 trial periods from August until November 2010) was submitted. This trial was carried out at an experimental olive grove consisting of trees of the Koroneiki variety in the area of Gerakiana (Prefecture of Chania) of Crete Island, located in Southern Greece. The experimental field covered an area of 10 stremmas (1 ha) and consisted of 250 olive trees. The planting distance was 7x7m and the percentage of fructification was approximately 80%.</p> <p>The experimental design used in this trial was the Randomized Complete Block Design with 3 replicates.</p> <p>For the evaluation of the attractiveness of the tested attractants McPhail glass traps were used. The distance between the traps was 20m to avoid interaction between the attractants. A special sponge (a cube 4x4x4cm) was placed in each trap in such a way so as not to obstruct the entry of flies into the trap. This sponge was soaked with 50 ml of each tested attractant with or without pesticide and water was added in the trap.</p> <p>Every 3 days the location of the traps was rotated (so that each trap was placed in all trees-locations and fly captures were not affected by the location of the trap) throughout the experiment. The attractiveness was assessed as captures in the traps hence the adult flies caught were counted and transported to the laboratory, where they were separated according to sex.</p> <p>The sponges in the traps were replaced when the number of flies caught was zero, in contrast to the fly captures in traps containing solutions of protein and ammonia (without cube), where the number was significant.</p> <p>The following attractants were tested either on their own or in combination with approved pesticides used on sponges in glass traps:</p> <p>DACUS BAIT 100 (2%)  DACUS BAIT 100 (2%) + FASTAC (300 ml/hl)  DACUS BAIT 100 (2%) + KARATE (125 ml/hl)  ENTOMELA 75 (2%)+ FASTAC (300 ml/hl)  ENTOMELA 75 (2%)+ KARATE (125 ml/hl)  ENTOMELA 75 (2%)  Ammonia (2%)  Water  SUCCESS (3.7 lt/hl)  DACUS BAIT 100 solution (2%) in trap (without sponge)</p>
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	<p>Ammonia solution (2%) in trap (without sponge).</p> <p>The duration of action of the attractants was tested in four separate trial periods.</p> <p>During the first trial period (9/8-23/8/10, duration: 14 days, temp: 19.8-32.7°C, RH%: 62.5-87.4), no statistically significant difference was observed among the various sponge treatments. DACUS BAIT 100 solution in McPhail trap attracted a significantly higher number of flies compared to all DACUS BAIT and ENTOMELA sponge treatments except ENTOMELA 75+KARATE and ENTOMELA 75. No significant differences were observed between ENTOMELA 75 and Ammonia solution. The duration of action of the attractants during August was proved for 14 days.</p> <p>During the second trial period (26/8-13/9/10, duration: 18 days, temp: 18.1-29°C, RH%: 57.8-95.3), no statistically significant difference was observed among the various sponge treatments. No significant differences were observed between ENTOMELA 75 and Ammonia solution. The duration of action of the attractants during the second trial period was proved for 18 days.</p> <p>During the third trial period (16/9-22/10/10, duration: 36 days, temp: 15.3-26.9°C, RH%: 61.2-85.1), the sponge treatment with ENTOMELA 75 attracted significantly higher number of olive fruit flies compared with the other attractants. No significant differences were observed between ENTOMELA 75 and Ammonia solution. The duration of action of the attractants during this trial period was proved for 36 days.</p> <p>During the final test (25/10/2010-22/11/10, duration: 28 days, temp: 13.3-24.8°C, RH%: 57.5-83.4), ENTOMELA 75 sponge treatment was comparable to all the other sponge treatments. No significant differences were observed between ENTOMELA 75 and Ammonia solution. In this trial, the duration of action of the attractants was proved for 28 days.</p> <p>In conclusion, in the first two trial periods no statistically significant difference was observed among the various sponge treatments, in the third trial period the sponge treatment with ENTOMELA 75 attracted significantly higher number of olive fruit flies compared with the other attractants and in the final period ENTOMELA 75 sponge treatment was comparable to all the other sponge treatments. No significant differences were observed between ENTOMELA 75 and Ammonia solution. The duration of attraction of the tested attractants with or without pesticide was proved for 18 days in summer (18.1-32.7°C) and 36 days in autumn (13.3-26.9°C).</p> <p><b>Apart from these GEP studies, the paper of Varikou et. al. 2011 included some information regarding the attractiveness of ENTOMELA 50 SL. This data was taken into consideration only as supplementary information.</b></p> <p>In this paper, the results of two (2) trials conducted in 2003 and 2010 for the evaluation of food and sex attractants, combined with plant protection products or not, are reported.</p> <p>The trials were conducted in olive groves (variety: Kalamon) of Institute of Olive tree and Subtropical Plants in Nerokourou village (Prefecture of Chania) of Crete Island, located in Southern Greece, during summer.</p> <p>In the 1<sup>st</sup> trial (23/7-11/9/03), olive fruit fly attractants (hydrolysed proteins such as ENTOMELA 50 (E50), ENTOMELA 75 (E75), DACUS BAIT 100 (Db) and Ammonium sulphate (Am) in 2% formulation separately or in combinations with the</p>
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	<p>sexual pheromone (Sp) of <i>Bactrocera oleae</i> were tested in McPhail traps in three replications. The trap solution was renewed weekly and the captured flies were counted. <b>The results of these trials showed that captures of olive fruit flies in the traps did not significantly differed among Db, E75 and E50 treatments. In addition, Db and E50 captured significantly higher number of olive fruit flies than Sp alone and Am.</b> The addition of Sp to the tested attractants did not influence their attractiveness.</p> <p>In the 2<sup>nd</sup> trial (20/7-1/11/10) the food attractants Db and E75 were tested alone in bait sprays as well as combined with the registered plant protection products (a.s.: a-cypermethrin, l-cyhalothrin). Am and the ready-to-use product SUCCESS were also evaluated. All treatments were compared with untreated control (water). The trap solution was renewed twice a week and the captured flies were counted and removed. According to the results of this trial, traps with Db and E75 captured significantly higher number of flies compared to Am and SUCCESS. The addition of plant protection product in the attractant solution (except for E75+l-cyhalothrin) reduced significantly the fly captures.</p> <p><b><u>Conclusion</u></b></p> <p>According to the intended GAP (please refer to the Appendix 2), <b>the dose rate of ENTOMELA 50 SL intended for the control of <i>Bactrocera oleae</i> with low volume ground bait spraying is 2% (spray volume: 30 L/ha) and with very low volume is 6% (spray volume: 10 L/ha). The number of applications and interval between applications depends on the insecticide used.</b></p> <p>ENTOMELA 50 SL has not been included in any of the three GEP studies submitted by the applicant. The product ENTOMELA 75 SL has been tested instead. However, taking into consideration</p> <ol style="list-style-type: none"> <li>the review study and the reports in ENTOMELA 50 SL,</li> <li>the results of the GEP studies with ENTOMELA 75 SL,</li> <li>the paper of Varikou et. al. 2011 with results of two trials showing that captures of olive fruit flies in the traps did not significantly differed between ENTOMELA 75 SL and ENTOMELA 50 SL treatments</li> <li>the fact that ENTOMELA 50 SL has been registered in Greece since 1994 for use in bait sprays for the control of <i>Bactrocera oleae</i> in olive trees, under the supervision of the MRDF and</li> <li>the fact that this product has been used in studies with insecticides intended to be registered for bait applications for the control of olive fruit fly,</li> </ol> <p>it is concluded that <b>ENTOMELA 50 SL, applied in bait applications at the dose rate 2% in mixture with a registered insecticide, is effective for the control of olive fruit fly <i>Bactrocera oleae</i>.</b></p> <p>According to the agricultural practice in Greek olive groves, the applied spray solution in bait spraying for the control of olive fruit fly is 30 L/ha (300 ml spray solution per tree in 100 trees/ha).</p> <p>The dose rate of the insecticides used in the spray solution, the number of applications and the spray intervals should be determined in the registration of each specific product.</p> <p><b>The use of ENTOMELA 50 SL with very low volume bait spraying is not supported by the submitted data.</b></p>
Agreed endpoint IIIA1 6.1.3: Olive trees –	<p>ENTOMELA 50 SL, applied in bait applications at the dose rate 2% in mixture with a registered insecticide, is effective for the control of olive fruit fly <i>Bactrocera oleae</i>.</p> <p>According to the agricultural practice in Greek olive groves, the applied spray solution</p>

olive fruit fly ( <i>Bactrocera oleae</i> )	<p>in bait spraying for the control of olive fruit fly is 30 L/ha (300 ml spray solution per tree in 100 trees/ha).</p> <p>The dose rate of the insecticides used in the spray solution, the number of applications and the spray intervals should be determined in the registration of each specific product.</p> <p>The use of ENTOMELA 50 SL with very low volume bait spraying is not supported by the submitted data.</p>
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### **CP 6.3      Effects on yield and quality**

The bait sprays method has been used for many years as an alternative method to full cover sprays where only insecticides are sprayed on the tree. As the total quantity of insecticide used in bait sprays is less than that applied in full cover sprays and only a part of the tree canopy is treated, this method improves the quality of olive fruit and olive oil compared to full cover sprays.

### **CP 6.4      Methods for Post-Authorisation Control and Monitoring Purposes**