

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
4 January 2007 (04.01.2007)

PCT

(10) International Publication Number
WO 2007/002960 A2

(51) International Patent Classification:

A01P 7/04 (2006.01) A01N 45/00 (2006.01)
A01P 19/00 (2006.01) A01N 61/00 (2006.01)
A01N 37/02 (2006.01) A01N 65/00 (2006.01)
A01N 37/36 (2006.01)

(81) Designated States (unless otherwise indicated, for every

kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(21) International Application Number:

PCT/ZA2006/000074

(22) International Filing Date: 7 June 2006 (07.06.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

2005/05222 28 June 2005 (28.06.2005) ZA
2006/01580 23 February 2006 (23.02.2006) ZA

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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Published:

— without international search report and to be republished upon receipt of that report

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: COMPOSITION AND METHOD OF PEST CONTROL

(57) Abstract: A pest control composition is disclosed including at least an insecticide and an insect attractant component, wherein the insect attractant component includes at least two of terpinyl acetate, β -caryophyllene, orange essence oil, ginger oil, treacle, ammonium acetate and ammonium citrate. Preferably, the composition comprises an insecticide and an insect attractant comprising terpinyl acetate, β -caryophyllene, orange essence oil, ginger oil and treacle. A pest control method is further disclosed which comprises combining at least an insect attractant component and an insecticide to form the pest control composition and applying the pest control composition to plants such as fruit trees, e.g. by spraying to control fruit-flies.



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COMPOSITION AND METHOD OF PEST CONTROL

FIELD OF THE INVENTION

THIS INVENTION relates to compositions and a method of pest control. In particular, the invention relates to the control of fruit-fly.

5 BACKGROUND TO THE INVENTION

A number of methods and compositions exist for the control of pests such as fruit-fly, but many of these methods and compositions lack efficacy because they lack the ability to attract insects such as fruit-fly in sufficient quantities and/or because they are too expensive.

10 The object of the present invention is to provide an improved composition and method of pest control that is effective against fruit-fly and other pests and that is cost effective.

BRIEF DESCRIPTION OF THE INVENTION

15 According to a first aspect of the present invention there is provided a pest control composition comprising at least an insecticide and an insect attractant component, wherein the insect attractant component includes at least two of terpinyl acetate, β -caryophyllene, orange essence oil, ginger oil, a sugar-based attractant such as treacle, ammonium acetate and ammonium citrate.

The insect attractant component of the pest control composition may include at least one insect attractant targeting male insects and at least one insect attractant targeting female insects.

5 The attractant targeting male insects may include terpinyl acetate, β -caryophyllene, orange essence oil and/or sugar-based attractant and the attractant targeting female may include ginger oil, ammonium acetate and/or ammonium citrate.

10 The pest control composition may include an insecticide and an insect attractant component comprising terpinyl acetate, β -caryophyllene orange essence oil, ginger oil and treacle. Alternatively, the insect attractant component may comprise terpinyl acetate, β -caryophyllene and ammonium citrate.

15 According to another aspect of the present invention there is provided a pest control method which includes combining at least an insect attractant component and an insecticide to form a pest control composition as described herein above, and applying the pest control composition to plants.

The pest control composition may be applied to plants such as fruit trees to control fruit-fly and the pest control composition may be applied by spraying.

EXAMPLE

For a better understanding of the present invention, and to show how

the same may be carried into effect, reference will now be made to the following non-limiting example.

A pest control composition in accordance with the invention is prepared by combining terpinyl acetate, β -caryophyllene, orange essence oil, ginger oil and treacle (molasses) to form an insect attractant component, and combining
5 the insect attractant component with a suitable insecticide that is effective for killing fruit-flies and that is chemically compatible for use in a pest control composition with the insect attractant component.

The insect attractant component of the pest control composition
10 includes attractants in the form of terpinyl acetate and β -caryophyllene that are each predominantly effective in attracting male fruit-flies. Ginger oil, on the other hand, attracts both male and female fruit-flies, although it predominantly attracts female fruit-flies. The orange essence oil and treacle are effective in attracting both male and female fruit-flies, but predominantly attracts male fruit flies.

15 In other embodiments of the invention, the composition may also include ammonium citrate and/or ammonium acetate, although ammonium citrate is preferred. Both these substances predominantly attract female fruit-flies. Ammonium citrate has no appreciable attractive effect on male fruit-flies, while ammonium acetate attracts both male and female fruit-flies, although it
20 predominantly attracts female fruit-flies.

The relative quantities of the substances combined in the insect attractant component may be varied, while still substantially maintaining the effectiveness of the pest control composition.

5 The pest control composition is sprayed onto fruit trees to form a fine mist that settles on the entire fruit trees, including fruit. Male and female fruit-flies are attracted by the scent of the insect attractant component of the composition, to ingest the composition and are killed by the insecticide component of the composition.

10 It is to be appreciated that the pest control composition in accordance with the invention can include a number of other substances/components, such as diluents, etc.

15 The invention described holds the advantages of very high effectiveness in attracting male and female fruit-flies to the pest control composition and killing the fruit-flies. It holds the further advantage of cost effectiveness, since all the substances included in the attractant component of the pest control composition as described hereinabove, are relatively inexpensive.

CLAIMS

1. A pest control composition comprising at least an insecticide and an insect attractant component, **characterised in that** the insect attractant component includes at least two of terpinyl acetate, β -caryophyllene, orange essence oil, ginger oil, sugar-based attractant, ammonium acetate and ammonium citrate.

2. A composition as claimed in Claim 1, **characterised in that** the sugar-based attractant is treacle.

3. A composition as claimed in Claim 1 or Claim 2, **characterised in that** the insect attractant component of the pest control composition includes at least one insect attractant targeting male insects and at least one insect attractant targeting female insects.

4. A composition as claimed in any one of the preceding claims, **characterised in that** the attractant targeting male insects includes at least one of terpinyl acetate, β -caryophyllene, orange essence oil and sugar-based attractant.

5. A composition as claimed in any one of the preceding claims **characterised in that** the attractant targeting female includes at least one of ginger oil, ammonium acetate and ammonium citrate.

6. A composition as claimed in any one of the preceding claims, **characterised in that** said composition includes an insecticide and an insect

attractant component comprising terpinyl acetate, β -caryophyllene, orange essence oil, ginger oil and sugar-based attractant.

7. A composition as claimed in any one of Claims 1 to 5, **characterised in that** said composition includes an insecticide and an insect attractant component comprising terpinyl acetate, β -caryophyllene and ammonium citrate.

8. A pest control method which comprises combining at least an insect attractant component and an insecticide to form a pest control composition, **characterised in that** the composition is a composition as claimed in Claim 5 or Claim 6 and the method includes applying the pest control composition to plants.

9. A method as claimed in Claim 8, **characterised in that** the pest control composition is applied to fruit trees.

10. A method as claimed in Claim 8 or Claim 9, **characterised in that** the pest control composition is applied by spraying.