

Claims

1. A method for controlling the growth of vegetation, comprising applying to the foliage of the vegetation, without any pre-heating, a composition comprising an aqueous solution of at least one sugar, thereby to induce osmosis on cells of the foliage and destroy those cells
- 5 2. A method as claimed in claim 1, wherein the sugar comprises at least one plant-based natural sugar.
3. A method as claimed in claim 2 wherein said at least one plant-based natural sugar is selected from sucrose, glucose, fructose, galactose, maltose, arabimose, lactose, inositol, mannose, ribose, trehalose, and xylose.
- 10 4. A method as claimed in any of the preceding claims, wherein the sugar comprises at least one sugar substitute.
5. A method as claimed in claim 4, wherein said at least one sugar substitute is selected from saccharin, sodium saccharin, stevia rebaudiana, siraitia grosvenori, aspartame, acesulfame potassium, sucralose, neotame, and advantame.
- 15 6. A method as claimed in any of the preceding claims, wherein the sugar comprises at least one sugar alcohol
7. A method as claimed in claim 6, wherein said at least one sugar alcohol is selected from sorbitol, xylitol, lactitol, mannitol, erythritol, and maltitol.
- 20 8. A method as claimed in any of the preceding claims wherein the solution comprises two or more sugars selected from natural sugar, sugar substitute and sugar alcohol.
9. A method as claimed in any of the preceding claims, wherein the sugar comprises sodium saccharin, and optionally, a natural sugar.
- 25 10. A method as claimed in any of the preceding claims, wherein the solution has a sugar concentration in the range of from 50 to 133 g/l.
11. A method as claimed in claim 6, wherein the solution has a sugar concentration of substantially 100 g/l.
12. A method as claimed in any of the preceding claims, wherein the composition further comprises a penetrant to promote the osmotic action of the solution, and optionally further comprises a bactericide.
- 30 13. A method as claimed in claim 12, wherein the penetrant comprises one or more of a surfactant, a wetting agent and an adjuvant.

14. A method as claimed in claim 12 or claim 13, wherein the penetrant is selected from alkyl polyglucoside (APG), Validate® and Yucca extract.
15. A method as claimed in any of claims 12 to 14, wherein the penetrant is or comprises Validate®.
- 5 16. A method as claimed in any of claims 12 to 15, wherein the penetrant is present in the solution in an amount in the range of from 0.15% to 0.5% by volume, relative to the volume of water.
17. A method as claimed in claim 16, wherein the penetrant is present in the solution in an amount of 0.375% by volume, relative to the volume of water.
- 10 18. A method as claimed in any of the preceding claims, wherein the composition comprises one more additional components selected from citric acid, a fatty acid, and an essential oil.
19. A method as claimed in claim 18, wherein the essential oil is one or more selected from pine oil, manuka oil and tea tree oil.
- 15 20. A method as claimed in claim 18 wherein the additional component is or comprises a fatty acid.
21. A method as claimed in claim 20, wherein the fatty acid is one or more selected from pelargonic acid, acetic acid and caprylic acid.
22. A method as claimed in claim 20 or claim 21, wherein the fatty acid is or
20 comprises pelargonic acid.
23. A method as claimed in any of claims 20 to 22, wherein the composition comprises substantially 50% sugar solution and substantially 50% fatty acid.
24. A method as claimed in any of claims 20 to 22, wherein the fatty acid is present in the composition in an amount of substantially 9% by volume
25 relative to the volume of water.
25. A method as claimed in any of the preceding claims, in which the composition is applied by spraying.
26. A method as claimed in claim 25, in which the composition is sprayed at a rate sufficient to wet the majority of the foliage of the plant being treated.
- 30 27. A method as claimed in any of the preceding claims, in which the composition is applied to the vegetation at ambient temperature.
28. The use of a composition comprising a solution of at least one sugar in a method as claimed in any of claims 1 to 27.

29. The use of a composition as claimed in claim 28 in a method as claimed in any of claims 1 to 27, said composition further comprising a penetrant.
30. The use of a composition as claimed in claim 28 or claim 29 in a method as claimed in any of claims 1 to 27, said composition further comprising a fatty acid.