United States Patent Application Publication	20250255291
Kind Code	A1
Publication Date	August 14, 2025
Inventor(s)	Grant; Robert Howard

Dandelion, Weed and Soil Injector

Abstract

A needle injector used in the Landscape Services to inject the soil getting to the root of a plant [FIG. **1** #1] with the purpose of killing the plant with herbicide flowing through the needle and out the holes [FIG. **1** #4]. Typical weed control is done by pulling the weeds with a tool or by hand, not very effective as weeds grow back when pulled, there is always some root left behind to regrow. This invention kills the weed at the root and it dies and disintegrates on its own. It is an easily used device by connecting it to a garden pump sprayer or similar device [FIG. **2** #5 and 6] and using pressure to drive the herbicide into the root. It is 6″ long. {FIG **1**. number 3} to get the deep roots. It can be used with fertilizers as well, getting near or on the roots.

Inventors: **Grant; Robert Howard (Warren, CT)**

Applicant: **Grant; Robert Howard** (Warren, CT)

Family ID: **1000007886634**

Appl. No.: **18/436236**

Filed: **February 08, 2024**

Publication Classification

Int. Cl.: **A01M21/04** (20060101); **A01C23/02** (20060101); **A01G29/00** (20060101)

U.S. Cl.:

CPC **A01M21/043** (20130101); **A01C23/026** (20130101); **A01G29/00** (20130101);

Background/Summary

BACKGROUND OF THE INVENTION

[0001] In the course of our experience in lawn care we found no acceptable way to successfully eradicate weeds, in particular, dandelions. We experimented for a year and found by injecting the roots with herbicide we had achieved our goal. Pulling weeds always leaves some broken off root to regrow. Thus we invented the Dandelion, Weed and Soil Injector. Also we discovered it can be used for fertilizing roots as well.

SUMMARY

[0002] This invention, the Dandelion, Weed and Soil Injector, injects herbicide directly to the root of a weed/plant to kill it without the need of physically pulling or removing the plant by hand or tool. It has a long needle with holes near the tip and attaches to a source at the other end which delivers liquid through the needle to the intended target inserted into the soil at the root under pressure from the source tank. Alternately, it can be used to inject and fertilize directly to the root of plants as well. It is unique to the marketplace.

Description

DRAWINGS

[0003] Included are 2 perspective views FIG. **1** and FIG. **2** of the invention indicating size from distal end FIG. **1** number **1**, to FIG. **1** number **2** the other distal end being a length of 7 inches. There is a sharp point at the tip, FIG. **1** number **1** and FIG. **2** number one. This is designed for easy penetration into the soil. There is a small hole near the tip, FIG. **1** number **4**, and FIG. **2** number **4** to dispense liquid. There is a threaded end on each FIG. **1** and FIG. **2** only visible on FIG. **2** number **5**. This is to connect to a garden type sprayer. FIG. **1** and FIG. **2** number **6** is the needle shaft constructed of stainless steel ⅜″ in diameter. FIG. **1** and FIG. **2**, number **2**, is the base which allows connection to the host sprayer, previously called a garden type sprayer. FIG. **2** number **6**, is an adaptor to allow sprayers with different size fittings to be connected.

DESCRIPTION

[0004] This device may be used for dandelions, weeds and any other reason to inject a liquid herbicide directly into the soil to the root. It relates to the field of Landscape Services. It can also be used for injecting liquid fertilizer as well. It can be constructed in plastic or metal. It is roughly 6″ long and ⅛.sup.th inch thick/wide with an adaptor that connects to its host tank. There is a pointed tip to insert into the soil to the root of a weed/plant and 2 holes at the tip to dispense the liquid. The opposing end connects to a source holding the liquid, under pressure, as in a common garden sprayer. To dispense the liquid a trigger on the source tank is engaged forcing the liquid through the needle and into the root of the plant destroying the root structure. This invention is a great improvement over conventional weeders as it kills the plant at the root without pulling the plant. Not only does the plant die off and disappear on its own, there are no holes in the turf from pulling plants/weeds. It attaches to a manual pump garden sprayer, or any type of instrument/device to propel the liquid through the needle into the root. The needle is long enough, to reach the base of the root thereby killing it on contact. For weeds, the purpose is to inject the root thereby destroying the plant without needing to physically pull the plant out of the ground. The plant will die and in and in several days dry up and disappear on its own. It differs from pulling weeds as in pulling there is always some root left in the ground to regrow at a later time, not so with injection, the root is destroyed. Pulling is far less effective. This invention is new and different from anything else due to the injection action and getting Into the root for its effectiveness. All other weeders depend on physically pulling the plant or surface spraying the plant with herbicide. That distinguishes our injector as unique and new to the marketplace. Also, we recommend using a 30% vinegar solution as the herbicide as it is Eco/Earth friendly and will not disturb the normal ecosystem of the soil as, opposed to chemical herbicides. Alternatively, the injector can be used to inject liquid fertilizer

directly to the root of any plant, instantly accessing the root immediately as opposed to surface fertilization.

[0005] FIG. **1** and FIG. **2** show perspective views of the same object. There is a point at one distal end number **1**, and a fitting at the other distal end, number **2**. Number **3** in each view show the needle approximately 6 inches in length ⅛ in thick. Number **4** is a drilled hole through the tip, allowing liquid to flow through 2 holes in the tip. There is a cavity through the entire length allowing liquid to pass from one distal end to the other. Number **5**, FIG. **2** is a ⅜ NPT [national pipe thread] fitting to attach to a source tank thread. Number **6**, FIG. **2** is a reducer fitting allowing use on a ¼ NPT [national pipe thread] source tank. So inserting number **6** into number **5** gives the option for different source tank connections.

Claims

1. An apparatus for injecting herbicide or fertilizer into the root of a plant, inserting it into the soil and contacting the root, the apparatus comprising; of a long narrow needle with a central cavity so that liquid can dispense through the holes of the needle at one distal end, into the plant root, and attach to a source of liquid at the other distal end.