University of Central Florida

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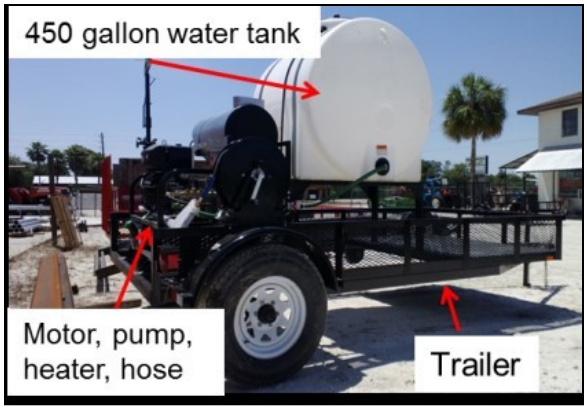
Eco-friendly, Scalable Device Kills and Controls Fire Ants and other Ground-dwelling Insects



The Trailer-based, Diesel Motor Powered Hot Water Apparatus

Fire ants are an ecological and financial problem in the worldwide. These pests upset and destroy natural ecosystems, are considered a public health threat, and have detrimental economic effects in agriculture (e.g., large mounds damage machinery), ranching (e.g., the loss of newborn livestock), and recreation and tourism (e.g., the loss of game birds as well as rendering park and resort areas uncomfortable or unusable).

A major challenge of fire ant control is avoiding environmental damage. Chemical poisons are commonly used to kill fire ants. However, these chemicals can pollute the environment, get into the water and/or food supplies, and also harm both the native and foreign species.

Technical Details

An effective device and technique developed at the University of Central Florida to provide large volumes of hot water (approximately heated at 100°C) on demand and makes it possible to control fire ants and other pest species at the scale of hectares, without the use of pesticides. It immediately kills fire ant colonies as well as provides comparable long-term control rates of the pests in small areas to chemical controls.

This invention is a variably sized unit for both large- and small-scale applications, and can be used as an alternative to all forms of chemical mound treatments and/or broadcast chemical baits for fire ant control in areas unsuitable for pesticide application, or where immediate control is desirable. This device can also be used on ground-dwelling insects such as yellow jackets, termites, or wasps.

Benefits

- Eco-friendly
- Non-toxic
- Immediate death of fire ant colonies
- Long-term fire ant control

Applications

Control of ants or other ground-dwelling arthropods that are vulnerable to high temperatures and that live in mediums such as soil or mulch that allow passage of water:

- Parks
- Recreation Areas
- Agriculture
- Ranching

Technology #33225

• US Patent Pending

Inventors

Joshua King, Ph.D.

For more information, contact:

Brion Berman | 407.882.0342 | Brion.Berman@ucf.edu | Tech ID #33225

UCF Office of Technology Transfer | 12201 Research Parkway, Suite 501, Orlando, FL 32826