

Pfr Biocontrol Product



What is this technology?

A means to economically produce and stabilize a living fungus, *Paecilomyces fumosoroseus* (Pfr), that can be used as a non-chemical control for important agricultural and urban insect pests such as whiteflies, aphids and subterranean termites.

What problem does it address?

The development of non-chemical insecticides can be an important tool in managing insect resistance to safe chemical insecticides and in providing an insect control tool for use in chemically sensitive environments such as organic farms and urban settings.

A major constraint to the use of microbes as pest control agents is the ability to economically mass produce stable, effective forms of these microbes. This technology overcomes this constraint for Pfr.

Who could use this technology?

Companies developing insect pest control technologies, with the likely end-users of Pfr being:

- Greenhouse operators (whiteflies and aphids)
- Organic farmers (whiteflies and aphids) and
- Urban dwellers (whiteflies, aphids, termites).

How is this technology unique?

This technology performs more effectively than other approaches by rapidly yielding high concentrations of Pfr spores that are:

- More stable
- More infective on various insect targets
- Able to be stabilized as dry preparations

Licensing Opportunity

This technology needs an industrial partner for commercial development. It provides a rapid, low-cost method for producing a form of Pfr. that is a very stable and highly effective biological pest control.

Stage of Development

Production and stabilization processes have been developed and tested at commercial scale. The use of Pfr for subterranean termite control has been proved at the bench scale and field trials are currently underway at ARS's Southern Regional Research Center, New Orleans, LA.

Pfr produced using this technology has been tested against various insect pests by ARS scientists in New Orleans, LA; Weslaco, TX; Ithaca, NY; Byron, GA; and Kerrville, TX; and by industry scientists in the US, Japan, Brazil and Spain.

IP Status

Awarded U.S. Patents 5,968,808 and 6.660,291

Additional patent pending

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