

Soil Technologies Corp.
Research and Development Department



Research Report

Title: Control of *Fusarium graminearum* with Intercept

Location: Fairfield, Iowa

Principal Investigators: Soil Technologies Corp.

Crop: Vegetable seedlings/In-vitro

Date: June 1996

Abstract:

The purpose of this trial was to evaluate the potential of Intercept¹ in treating seedlings grown in soil that was contaminated with *Fusarium graminearum*. In tests conducted in the greenhouse at Soil Technology's lab facility, seedlings that were treated with Intercept demonstrated a greater resistance to damage from the *F. graminearum* pathogen and displayed greater vigor compared to the control. Also in-vitro test of Intercept demonstrated the ability to contain the spread of the pathogen.

Methods:

Plants

In a greenhouse setting, vegetable seedlings were grown in trays contaminated with pathogenic soil fungus, *F. graminearum*. Seedlings treated with Intercept were then observed and compared to seedlings of untreated control.

In-vitro

Intercept effect was also observed on Petri dishes contaminated with *F. graminearum*. Two Petri dishes were inoculated with the pathogen, one received an application of Intercept as a vertical line down the center of the dish while the second was the untreated control.

Results:

Plants

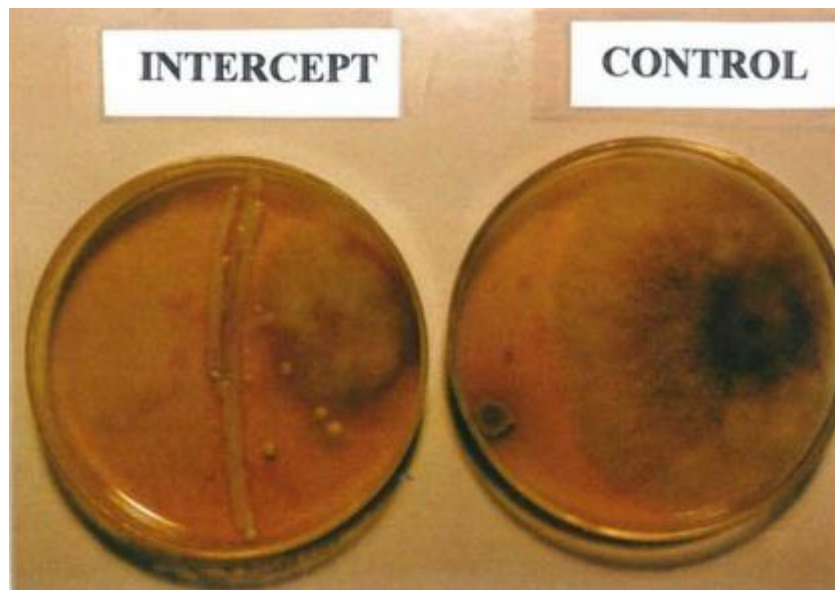
The photographs below demonstrate the results of the tests conducted on the vegetable seedlings. Seedlings treated with Intercept (on the right) demonstrated a greater resistance to the disease and greater vigor.

¹Intercept is a liquid soil inoculant developed and manufactured by Soil Technologies Corp. in Fairfield, Iowa, USA



In-vitro

The photograph below displays the results for the in-vitro test. The Petri dish on the left had Intercept applied as a vertical line down the center of the dish. The fungal growth apparent in the Petri dish treated with Intercept was unable to spread beyond the application of treatment. However, in the control Petri dish, fungal growth was not contained and dispersed throughout the dish.



Conclusions:

Both tests demonstrate Intercept's ability to control the pathogen *F. graminearum*.

Plants

Seedlings that were treated with Intercept showed greater resistance to *F. graminearum* and were more robust than the control.

In-vitro

The in-vitro test also demonstrated Intercept's ability to contain the spread of the pathogen.