2nd Generation Prototype Band-Steam Machine – Initial Testing

Mark C. Siemens

Vol. 13, Issue 06, Published 3/22/2022

A couple of weeks ago, we initiated testing of our 2nd generation prototype band-steam machine. Band-steam is where steam is applied in narrow bands of soil centered on the seedline to raise temperatures to levels sufficient to kill weed seed and soilborne pathogens (140°F for 20 minutes). The machine has a higher capacity steam generator and simpler design than our first prototype. Check it out by clicking on the following link: https://www.youtube.com/watch?v=AEY4wHo7vgo

Acknowledgements

This work is partially funded by the USDA-NIFA Crop Protection and Pest Management Program.



Fig. 1. 2nd generation band-steam applicator for injecting steam into the seedline prior to planting to kill weed seed and soilborne pathogens. Click <u>here</u> or on the image to see a video of the device in action.