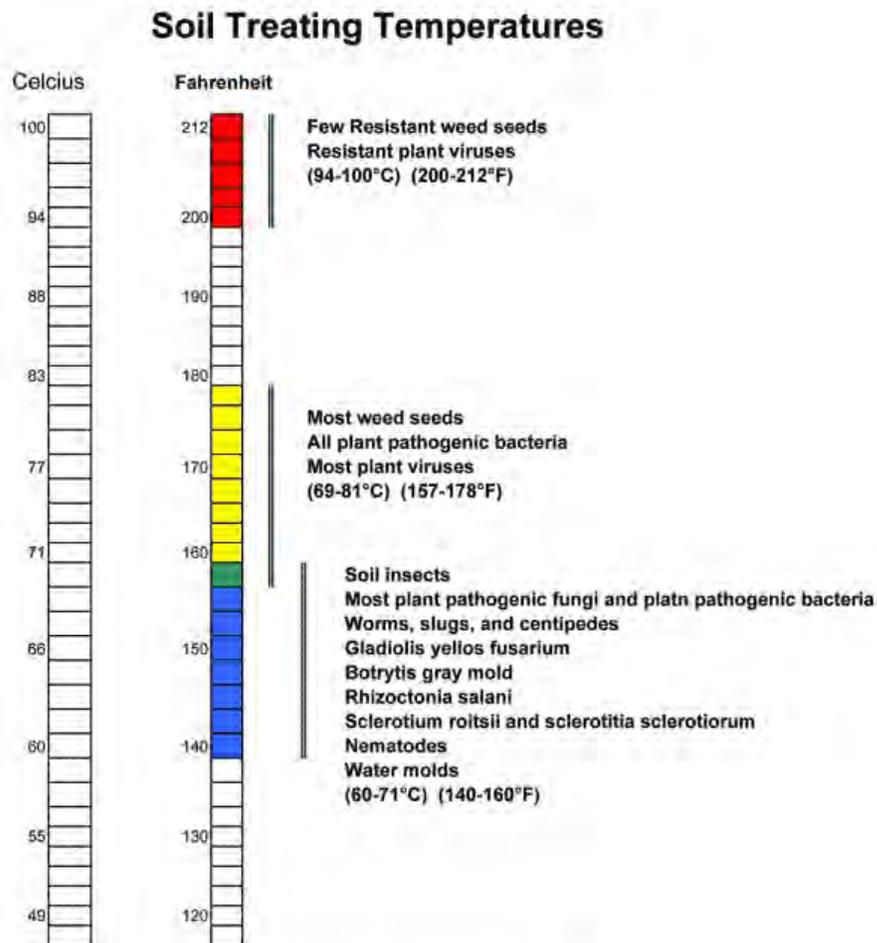


Why Steam for Eliminating Greenhouse Weeds?

Why do some of the fastest growing nursery operators use steam to sterilize the soil in their greenhouse beds? Low-pressure steam is the original organic and environmentally friendly way to control harmful diseases, nematodes, pathogens, and weed seeds. Utilizing steam, instead of relying on chemical methods of sterilization, is less hazardous, frees up labor for more productive activities, gets your plants into healthier soil faster, and can help improve your overall yield. Also, weeds cannot become resistant to heat over time like they do with certain chemical applications. Because weeds do not become resistant to this method, steam eliminates greenhouse weeds yesterday, today, and will continue to eliminate weeds in the future.



Important

- 1) Aerate the soil as much as possible to allow steam/heat to penetrate the soil.
 - 2) Hold soil at desired temperature treating level for a full 30 minutes.
 - 3) Temperature may vary depending on soil density, multiple reading should be taken for a uniform sample.
 - 4) Raise soil to treating temperature as fast as possible.
- After 30 minutes of steam treating, cool down the soil as fast as possible.

REFERENCE: from Baker, K.F., ed. 1957. "The U.C. System for Producing Healthy Container-Grown Plants," California Agriculture Experiment Station and Extension Service Manual 23.

A low-pressure steam generator is the perfect solution for sterilizing soil. Steam generators are easy to operate, can be fully operational in minutes, and are available as stationary or portable units. Steam generators can use either diesel, natural gas, or propane as their fuel source, and require a garden hose water source and 115V electricity. The steam-generator is then set up with a steam hose and steam sock to evenly distribute the steam into the soil. The steam sock is laid on top of the soil and covered with a heavy tarp, and the edges of the tarp are weighted down. Steam is then delivered to the soil through the steam sock. The soil should be heated to 180° Fahrenheit (82° Celsius) for 30 minutes to remove harmful pathogens, weed seeds, nematodes, and contaminants. Once the soil has been sterilized and cools, you are ready to plant.



"We are very excited about our initial assessment of the weed control that can be obtained through Sioux's Steam-Flo generator. Our preliminary results are very promising, and we are excited about the prospects of this technology to improve crop production while mitigating pesticide applications." **Research & Extension Professor – Mississippi State University**



Sioux Corporation has been manufacturing Steam-Flo steam generators since 1939 and can provide different sizes and options for all greenhouse operations. If you are ready to learn more about soil sterilization with steam, contact us and we can show you what would work best for your operation.

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