

The **X-Steam-inator**, invented by Ron Gleim of Chaplin, SK provides high temperature steam on demand for weed control as well as crop desiccation. While a number of companies based in Europe and Australia have developed steam machines for weed control, they all use boiler technology. Using a patented electrical process and various other innovations, the X-Steam-inator turns water into steam as it is needed (no boiler) and is thereby more effective and cost efficient while using a relatively small water volume per acre.



Generator, other electrical components, heat exchanger and water tank housed in trailer with booms behind unit. These booms are for weed control in seedbed strips for subsequent planting of vegetables.





Before treatment of strips with X-Steam-inator

The day after treatment of seedbed strips with X-Steam-inator

With herbicides becoming less effective and less accepted by consumers, the X-Steam-inator has an increasingly wide range of applications. Development work is initially concentrating on a few high-value uses:

- Application to seed beds ahead of planting vegetable crops (see booms in photo.) In addition to controlling emerged weeds, heat from the steam can penetrate the soil surface to terminate germinating weeds and even weed seeds in the top one-half to one inch of soil giving the crop a head-start thereby eliminating the need for expensive hand weeding in the crop row.
- 2. Vineyards and orchards where weed control is needed next to the plants without the problems associated with tillage and herbicides.
- 3. Desiccation of potato crops prior to harvest. All commercial potatoes are desiccated to stop growth and let potato skins set before harvest begins. The X-Steam-inator accomplishes this without the use of a chemical desiccant.

Different booms are being designed for specific uses. For potato desiccation, there are booms for when the crop has been flailed and booms for desiccating plant rows without flailing.

What X-Steam-inator Agriculture Products learns in adapting units to the first applications will help guide development as the company expands to other crops. Research collaborators include the Prairie Agricultural Machinery Institute at Humboldt, SK, Honey Bee Manufacturing of Frontier, SK, Radyne Manufacturing of Milwaukee, Wisconsin and the Yuma Agricultural Center in Arizona. As well, weed scientists at the University of Saskatchewan's Department of Plant Sciences have a research project utilizing the X-Steam-inator.

Follow our progress at <u>www.xsteaminator.ca</u>. For further information, contact:

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