

THERMACULTURE™

AGROTHERM XT



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■ LET THERMACULTURE™ HEAT UP YOUR BOTTOM LINE

- Thermaculture assures fruit set and better yields for greater revenue, even in cool wet weather.
- “Heat shock” from Thermaculture increases flavonoids including antioxidants and phenols for better tasting, more healthful wine.
- Increases skin to pulp ratios by reducing berry water during veraison.
- Use Thermaculture to dry vines and prevent fungal development.
- Raise Brix to harvest targets when Mother Nature goes into stall mode.
- Reduce need for chemicals, lower pest control costs.

■ THERMACULTURE™ SOLVES VINEYARD PROBLEMS FOR WHICH THERE HAS BEEN NO PREVIOUS SOLUTION!

Heat has long been known as a key factor in setting fruit, improving yields and assuring phenolic development. Now you can use proven Thermaculture cost saving techniques in the vineyard to save crops from unpredictable weather issues and to create desired effects in yields and quality

IMPROVE FRUIT SET – Heat at bloom assures better fruit set. Even in great fruit set climates Thermaculture™ during bloom has increased fruit set an average of 22% from 2012-2016 trials in over 50 vineyard blocks in the California, Washington, Oregon and more recently Germany and France.

INCREASE YIELDS – Higher fruit set can be managed to increase harvest yields providing more revenue per acre. Since 2012, Thermaculture™ generated an average of 16% more harvest yield per vine.

REDUCE PESTICIDE NEEDS – Trials have shown season long Thermaculture™ treatments in an IPM type program can cut costs by 2/3rds or more, reduce work delays and prevent other unintended environmental and human consequences.

IMPROVE WINE QUALITY - Blind taste testing done in 2013-2016 of wines from over 30 trial and control wine blocks resulted in consistent sensory preference for wines made from Thermaculture™ grapes.

REDUCE RAIN DAMAGES – Thermaculture™ can be used to dry off crops after rains to reduce mildew/fungal development, increase brix by removing excess water or extend hang time.

Don't wait to have Thermaculture™ help when you need it

■ THERMACULTURE™ AND HOW IT WORKS

AGROTHERMAL SYSTEMS (www.agrothermalsystems.com) is based in California and is a dba of Lazo TPC Global Inc. a California Corporation Agrothermal has pioneered the use of Thermaculture™ as a means to increase yields, reduce pesticide needs and improve crop qualities.

The company holds patents on Thermal Pest Control and has patents pending on Thermal Plant Treatment and genomic expression for agricultural crops.

The heat treatment is applied to plants from a tractor pulled machine at various stages throughout the growing cycle. The thermal treatment technology can be best described as the application of heated air at a minimum temperature of 150°C (302°F) at a wind velocity of 40-60 km/h (25-35 MPH) onto crops from a tractor pulled machine. Moving at 5-6 km/h (3-4 MPH) you can treat a row width of 2 to 3,50 m.

Since 2014, we build the AGROTHERM XT machines exclusively for AGROTHERMAL SYSTEMS and are responsible for the Sales in Europe.

“The AgrothermXT is a PTO shaft-driven device to be mounted on a tractor. Developed for the usage in vineyards, cane berries and orchards with row-type crop arrangements, its heat blowers generate a hot air stream. While driving between the vine rows, the heat is directed through the crops. Depending on local climatic conditions and the benefits being targeted, the treatment is applied periodically during the growing season from bud to harvest.”



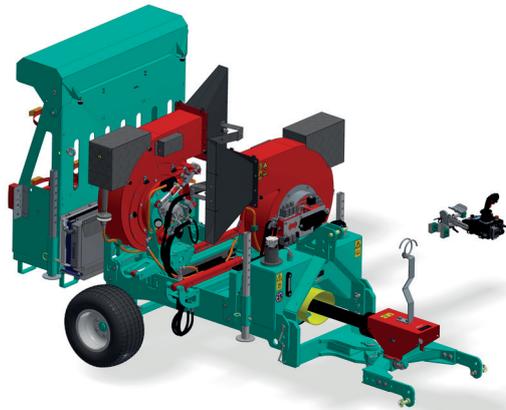
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■ AGROTHERM XT FOR VINEYARDS, CANE BERRIES AND ORCHARDS

- Easy to install on tractors and user-friendly handling
- High mobility and less required space in headlands and rows
- Convenient, ergonomically perfect steering of the unit via joystick and control display, comfortable from driver's seat
- Easy to adjust for best results, no tools required
- Ecological - environmentally friendly, gas heating, no application of chemicals
- No phytosanitary permission required

Periodical applications with Thermaculture™, from bud to harvest, have shown significant advantages against non-treated test blocks. Agrotherm XT therefore offers new possibilities to the grower to influence the development of his crops during different growth and maturity stages

■ AGROTHERM XT UNIT CONSISTS OF THE FOLLOWING COMPOUNDS



- Base frame with integrated oil tank which holds the blowers, the drive and the gas tank frame.
- Heat blowers that generate a hot air flow and direct it at the plants. For this, the inclination angle of the blowers can be adjusted and adapted to the row width.
- Hydraulic Drive unit and Electro-Hydraulic Control Unit
- 2 sets of blowers ("early season" and "late season") with different dimensions and a nozzle extension
- C-CONTROL PREMIUM steering with touchscreen display and joystick

Watch Agrotherm XT video, online «www.clemens-online.com» or here with your smartphone:



■ TECHNICAL DATA



Easy Access to all relevant functions:
C-CONTROL PREMIUM steering with touchscreen display and joystick.



3 different type of gas containers: „EU“, „US“ and „US small“. Gas tank frames and the amount of containers are developed for extended operating time.



The inclination angle of the blowers can be adjusted and adapted to the row width.



High mobility and less required space in headlands and rows.

Technical data:

- Base unit: 840 kg
- EU tank frame, empty: 210 kg
- US small tank frame, empty: 215 kg
- US tank frame, empty: 200 kg
- Drawbar: 160 kg
- Axle: 70 kg
- two different sizes of axles available: 1100 or 1350mm
- Total weight with EU tank: 1.400 kg

- Speed limit: 25 km/h
- Speed for application: 5 to 6 km/h
- PTO shaft setting: 480 rpm
- Minimum power: 60 HP
- Row width: 2 to 3,5 m
- Ca. gas consumption: 100 kg for 7-9 h operational work, depending on weather conditions and settings

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■ THERMACULTURE™ HAS GOOD STORIES TO TELL



Philip Goodband, Master of Wine (Sussex/ UK), about 24 different blind tastings of 2013-2016 Trial & Control Wines:

"The flavor characteristics of the wines from treated grapes were in my view noticeably better. In finished wines these early stage advantages would likely improve with aging to an even greater degree."

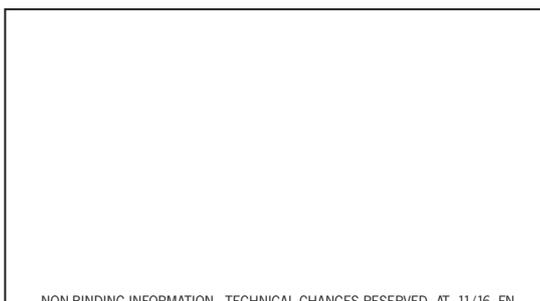
Jason Domingos, Owner of JD Farming (Paso Robles, California/ USA), about his experience with Thermaculture™:

"2015 yields in Paso were 50-100% down. In my control blocks I only averaged 3.7 tons per acre, but where I treated with Thermaculture™ my yields averaged 5.2 tons per acre or an average increase of 1.5 tons (+37%) more. This works out to about 150 tons on 100 acres that I would not have produced without the AgrothermXT machine. The machine paid for itself several times over in just the first year. Wish I'd treated all 200 acres!"

Fabrice Dubourdieu, Winery Château Reynon Dubourdieu (Beguey/ France) about his observations during trials in 2015 and 2016:

"We decided to try this new technique to set more fruit on Merlot, a varietal that is always difficult to obtain adequate yields. We were quite pleased to see fruit set improvement with 20% more berries per bunch and 25% heavier bunches as a result of the heat treatments. This was especially impressive in a year when we had excellent weather for fruit set. If we can duplicate these kinds of increases next season, this technology would be a very profitable investment for our wine estates."

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NON-BINDING INFORMATION - TECHNICAL CHANGES RESERVED - AT - 11/16 - EN

