

Dear Reader:

Welcome to our 38th Anniversary “Best of FARM SHOW” issue. It’s a dandy - a collection of most popular products and ideas featured in previous issues of FARM SHOW. Our first Best of FARM SHOW was published back in 1980 - three years after FARM SHOW Magazine was launched.

We’ve inserted handy “Reader Inquiry Cards” which you can use to order free literature and follow-up information on many of the products featured in this special issue. If you’re in a hurry and need instant “where to buy” and other information, just call or write. You’ll find addresses, phone numbers and websites at the end of most stories.



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Editor-Publisher

Sincerely,

Mark Newhall

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Publications Mail Agreement No. 40032660
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Printed in U.S.A.

“Climate Battery” Controls Greenhouse Heat And Humidity

Jerome Osentowski sees no reason to vent heat and humidity out of his greenhouses when he can charge up his “climate battery” instead. By blowing hot, humid air into the cool soil beneath his greenhouses, the heat and humidity are released. The air cools, and by the time it returns to the greenhouse, it is cooler and drier.

As hot air hits the cool pipes in the soil, a phase change occurs as the humid air condenses into moisture inside the pipes.

“Phase changes produce a geometric increase in the release of heat into the thermal mass of the soil,” says Osentowski.

Later, that heat is released to the greenhouses, which are set at 7,200 ft. Cool air from the greenhouse is blown into the same pipes, picks up heat from the soil, and returns to warm the greenhouse.

Osentowski compares the climate battery to a refrigeration system that moves heat from one place to another. With the correct design, a 1,200-sq. ft. greenhouse requires the equivalent equipment and running costs of a household refrigerator.

It is a system that Osentowski, along with his partner, architect Michael Thompson, has developed and spread through their firm Eco Systems Design.

“We did a simple one in the beginning and constantly updated as we built new greenhouses,” says Osentowski. “Working with Michael, we have developed the technology to industrial scale. It is now being used in



Climate Battery blows hot, humid air through pipes and into the cool soil beneath a greenhouse, where heat and humidity are released. By the time the air returns to the greenhouse it’s cooler and drier.

huge, commercial greenhouses.”

In his book “The Forest Garden Greenhouse”, Osentowski describes the use of temperature and humidity sensors to calculate the heat stored in the soil. He also explains how to measure the discharge rate in the face of winter cold.

Available from Chelsea Green Publishing, (ph 800 639-4099), the book outlines the

history, design and mechanics of the Climate Battery.

Contact: FARM SHOW Followup, Eco Systems Design, Inc., P.O. Box 631, Basalt, Colo. 81621 (ph 970 927-4158; jerome@crmpi.org; www.ecosystems-design.com) or Chelsea Green Publishing, 85 North Main St., Suite 120, White River Junction, Vt. 05001 (ph 800 639-4099).