

## Product and Equipment News

### Brochure Describes Goal's Weed Control Capabilities

A 12-pp color brochure highlights Goal® 2E herbicide's troubleshooting capabilities in preemergence, no-till, double crop, and postemergence directed sprays for broadleaf weed control in soybeans. The two-way contact and residual activity of the herbicide are featured, along with a chart detailing solutions to controlling tough weeds, including velvetleaf, jimsonweed, teaweed (prickly sida), and pigweed.

Copies of the brochure may be obtained by writing to the Advertising Department, AG-638, Rohm and Haas Company, Philadelphia, PA 19105.

Contact: **Steve Raye, Bader Rutter & Associates, Inc., 13555 Bishop's Court, Brookfield, WI 53005, (414)784-7200.**

### Thermal Pod Absorbs, Stores, and Releases Solar Energy

When installed on the outside wall of a residence, behind a south-facing Vegetable Factory® double-walled solar greenhouse, the Solar-Pod™ absorbs, stores, and releases solar energy. The modular high-capacity storage container is designed to function with virtually any south-glazed

solar system and will store as much heat as a 10-in. masonry wall. Unlike rock, water, or rod storage systems, the pods' vertical positioning on an outer wall leaves the internal floor area of the solar collector open for other functional uses.

Each Solar-Pod weighs 29 lb and is 48 in. wide, 16 in. high, and 2 in. thick. The pod comes complete with an aluminum quick-mount slip-channel kit and is easy to install. The translucent fiberglass-reinforced polymer pod has an opaque black facing on one side and contains crystalline (phase-change) material that "melts" at 81 F and absorbs and stores large quantities of heat at that temperature. Only 50 BTU of solar energy striking each foot of pod area is needed to bring the pod to 81 F, and the heat-storage capacity of each pod at that temperature is 2,200 BTU.

The Revers-A-Fan™, an electrically reversible air distribution unit with a built-in thermostat, moves large volumes of warmed air from the solar collector and storage pods into adjacent living areas. With a quick-mount kit, the 20-in. fan retrofits easily into a wall or window. The two-speed motor moves up to 3,300 cu. ft. of air per minute. The reverse summer mode helps cool the residence as well as the collector.

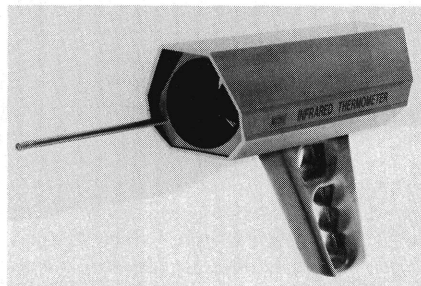
More information is available in Vegetable Factory Solar Structures Bulletin #718, which may be obtained by writing to Vegetable Factory, Inc., P.O.

Box 2235, Dept. 352, New York, NY 10163, or by calling (212)867-0113.

Contact: **Fred Schwartz, Sheldon Fredericks Advertising Associates, Inc., 71 Vanderbilt Avenue, New York, NY 10017, (212)867-0110.**

### Infrared Thermometer for Fast, Precise Surface Temperatures

Surface temperatures can be measured in a fraction of a second in the range of -30 to +110 C with the Everest Model 110/C infrared thermometer or of -30 to +200 F with Model 110/F, the first with

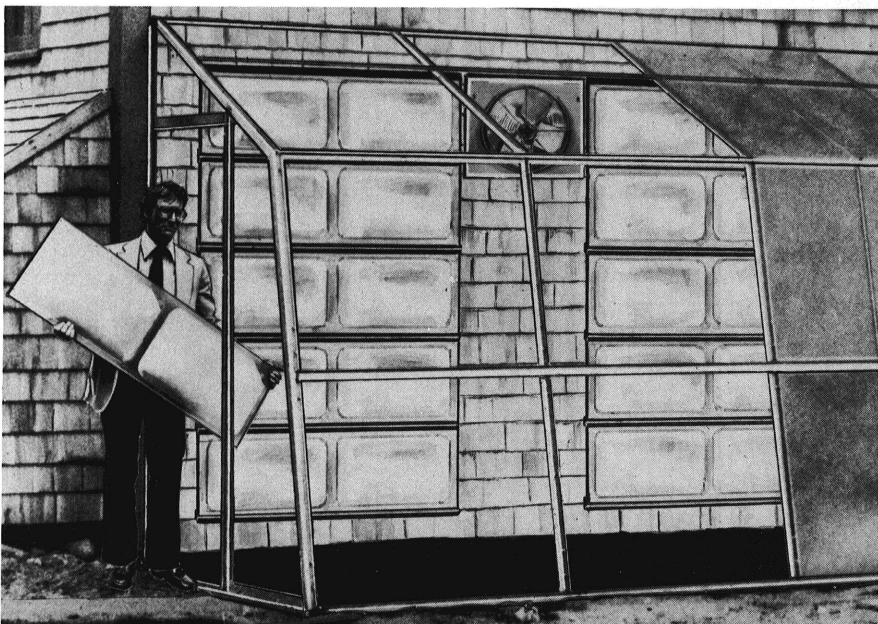


0.1 F resolution. The temperature differential sensor is housed in a telescopic antenna, away from the heating or cooling effects of the instrument and the operator's hand.

The instrument is pointed at the target, and the temperature shown on the liquid crystal display is recorded. Pressure is applied with the index finger to find the difference between the temperature of the target's surface and the ambient air temperature. Data averaging is activated by a flip of a toggle switch, which changes the data mode from instantaneous to a 5-sec response time. Data averaging smoothes data with respect to time and averages out the fluctuations in readings caused by wind gusts or irregular temperature fields.

The instrument is powered by rechargeable batteries that provide 30 hr of continuous operation. The words "LOW BAT" show on the display when the battery charge is getting low. An automatic power "on-off" assures that the instrument will not be left on accidentally. Tempered, extruded aluminum is used for the instrument's case, and a wrist strap is included.

Contact: **Marilyn M. Everest, Everest Interscience, P.O. Box 345, Tustin, CA 92680, (714)992-4461.**



## Truban Fungicide Available in Granular Formulation

Truban® 5G, a new granular formulation of the soil drench fungicide, features virtually dustfree application and is effective on a host of foliage plants as well as container and bedgrown herbaceous and woody plants, according to Mallinckrodt, Inc. The 5% granular material should be mixed at a ratio of 10 oz to each cubic yard of soil and is available in 40-lb drums.

Contact: Jacob Jost, Business Manager, Specialty Agricultural Products, (314)895-5034, OR Mallinckrodt, Inc., P.O. Box 5439, St. Louis, MO 63147.

## LI-1600 Steady State Porometer Calculates Diffusive Resistance

The LI-1600 steady state porometer is designed to measure stomatal diffusive resistance ( $0.5-100 \text{ sec cm}^{-1}$ ). Applications include plant studies using stomatal resistance or conductance as an indicator

of photosynthesis, water stress, and susceptibility to air pollutants.

In the steady state (null balance) technique, the sampling cuvette is maintained at ambient temperature and humidity, or another chosen value of humidity. Diffusive resistance is automatically calculated under ambient conditions from the measurement of leaf temperature, cuvette temperature and relative humidity, and dry air flow rate. Transpiration under these conditions is also calculated, and an optional quantum sensor measures photosynthetically active radiation.

Advantages of the LI-1600's steady state technique include: 1) the much wider range of diffusive resistance that can be measured, compared with transient techniques; 2) no need for calibration curves or conversions, because diffusive resistance and transpiration are derived from primary measurements (relative humidity, temperature, air flow); and 3) ability to make measurements on small leaves and conifers.

Features of the LI-1600 are semi-automatic humidity null, microcomputer control, rapid measurement time, computer compatibility, internal air

pump, rechargeable battery, and portability for field operation. The hand-held sensor head has an open-face cuvette design that prevents "greenhouse effects," a ventilated shroud surrounding the cuvette, a cuvette mixing fan, and accurate, stable humidity measurements.

Contact: Larry Middendorf, LI-COR, Inc., P.O. Box 4425, Lincoln, NE 68504, (402)467-3576.

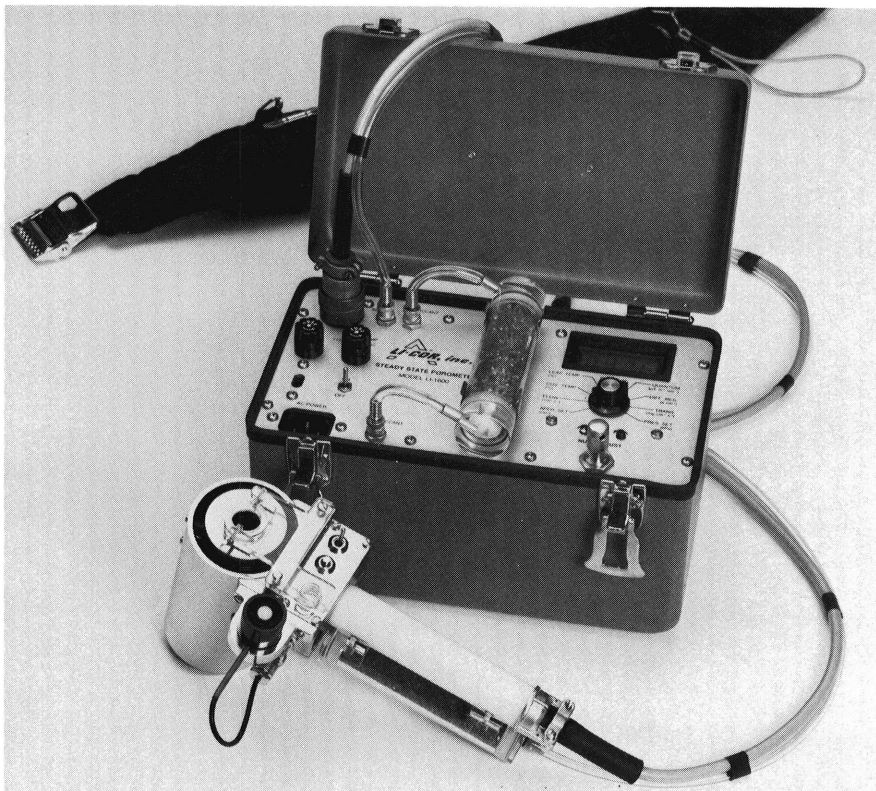
## Nudrin for Use on Avocado and Cotton in California

Nudrin® methomyl insecticide has received 24c approval from California for use on avocados. Both Nudrin 90 and Nudrin 1.8 are cleared for control of omnivorous leafroller, avocado leafroller, and avocado looper. Nudrin 90 is cleared for use at the rate of 0.5-1 lb/A and Nudrin 1.8, at 1-2 qt/A. The material should be applied in sufficient water to obtain thorough coverage when insects are first detected.

Nudrin has also been registered as an ovicide on cotton in California. When applied to cotton, the contact insecticide controls the eggs and newly emerged larvae of bollworm and tobacco budworm. Both the liquid and soluble-powder formulations are registered for this new use.

More information is available from Shell Chemical Company's Western District Office, 2401 Crow Canyon Road, San Ramon, CA 94583, (415)820-7022.

Contact: John Dewberry, Gibbs & Soell, Inc., 2 Kingwood Place, 700 Rockmead Drive, Kingwood, TX 77339, (713)358-2804.



No endorsement of the products or services described or of the statements or claims made in these listings is assumed by PLANT DISEASE or by The American Phytopathological Society.



Open to both  
men and women

## RESEARCH SCIENTISTS

Salary: \$17,660 – \$36,428

Agriculture Canada  
Research Station  
Vineland Station, Ontario

The Vineland, Ontario Research Station of Agriculture Canada requires three scientists to develop independent research programs in the following scientific areas:

### GRAPEVINE PATHOLOGIST (80-NCRSO-AGR-5)(PN)

To develop programs directed at the prevention and control of virus and other diseases which attack grapevines of the Niagara Peninsula. The scientist will work closely with the grape and wine industries; will provide diagnostic services, and develop and maintain plantings of virus-tested grapevines. A knowledge of, and working experience in, viticulture and modern methods in general plant pathology is required. The scientist will provide advice and recommendations to plant quarantine personnel and deal effectively with practical field problems.

### PLANT PATHOLOGIST (ORNAMENTALS) (80-NCRSO-AGR-3)(PN)

To develop programs on disease problems and control in greenhouse ornamental crops. A knowledge of plant disease identification; of methods of disease measurement, spread and severity is required. The scientist will work closely with the greenhouse ornamentals industry in providing a diagnostic service and advise on the control of plant diseases.

### ECONOMIC ENTOMOLOGIST (ORNAMENTALS) (80-NCRSO-AGR-4)(PN)

To conduct research on the ecology of pest and beneficial species of arthropods associated with greenhouse production systems both ornamental and vegetable. A knowledge of the principles underlying the relationship between biological activity and development of arthropod species and their environment is required. The scientist will assess the significance of micro-and macro-environmental factors on arthropod control and pest management systems. The successful candidate will evaluate chemical pesticides to provide a diagnostic service and provide advice on means of pest control relative to ornamental crops.

#### Qualifications for all the above positions

Ph.D. graduate specializing in subjects related to the advertised positions or a Masters or Bachelor degree coupled with independent research experience equivalent to that of a Doctorate degree.

Knowledge of English is essential.

Clearance Nos.: 500-277-004, 310-330-070, 400-282-035

## TREE FRUIT PATHOLOGIST

Salary: \$17,660 – \$25,580  
Ref. No.: 80-NCRSO-AGR-6 (PN)

Agriculture Canada  
Research Branch  
Harrow, Ontario

The Harrow, Ontario Research Station of Agriculture Canada requires a research scientist to be responsible for a plant pathology research program in tree fruit diseases primarily of fungal origin. The successful candidate will investigate the etiology of diseases affecting peach, pear, apple, and other tree fruits; develop an understanding of the influence of production practices and environmental factors on disease epidemiology; formulate disease forecasting models and control measures; cooperate with tree fruit breeders; publish research results in scientific journals; and transfer new technological developments to industry and regulatory agencies.

#### Qualifications

A Ph.D. with major training in plant pathology and thorough training in mycology or a Masters or Bachelors degree coupled with independent research equivalent to that of a Doctorate degree is mandatory. A demonstrated ability to conduct original research and to communicate effectively is also required. Training in plant physiology and experience in epidemiological methods and modelling would be assets.

Knowledge of English is essential.

Clearance No.: 400-276-040

Additional job information is available by writing to the address below;

Toute information relative à ce concours est disponible en français et peut être obtenue en écrivant à l'adresse suivante:

#### How to apply

Send your application form and/or résumé to:

Paul Hamelin  
National Capital Region Staffing Office  
Public Service Commission of Canada  
300 Laurier Avenue West  
Ottawa, Ontario K1A 0M7  
Closing date: January 31, 1981

Please quote the applicable reference number at all times.

Public Service Commission  
Canada  
Fonction publique  
Canada