

Insect Rearing Group

# FRASS newsletter

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## Dr. Pritam Singh

Dr. Pritam Singh, an internationally recognized expert in insect rearing, recently retired from the New Zealand Department of Scientific and Industrial Research.

During his career, he has published over 100 scientific papers, several authoritative reviews and is the author of two textbooks: *Artificial Diets for Insects, Mites, and Spiders*, and *Handbook of Insect Rearing Vol I & II*.

Dr. Singh has travelled extensively. He has served as a consultant to various Government Agencies and international institutions like the US Department of Agriculture, international Center For Insect Physiology and Ecology, Agriculture Department of the Government of the Cook Islands, New Zealand Ministry of External Relations and Trade. His consulting appointments have included pesticide and biotechnology companies: Monsanto, BASF, Sandoz, American Cyanamid, Johnson Wax, Dow Chemicals, Rhone-Poulenc, Mycogen, Bioserv, Novo Nordisk Ertotech, Bactec, SDS Biotech, Kuboto, Shell, Schering and Novo.

In retirement, dr. Singh will continue to be actively involved in Entomology. He is working as an independent consultant in insect rearing and insectary management, and plans to write his third book on *Insect Rearing Management*. He can be contacted at Karta Technology, Inc., 1892 Grandstand, San Antonio, Texas 78238 U.S.A. Telephone: 210 681-9120, Fax: 210 681-9198.

## CENTRAL PURCHASING ADVANTAGES AVAILABLE

Several FRASS subscribers have provided information which has enabled Wendy Lewison Management Associates, a New Jersey based concern, to assemble a list of the many paper and plastic products most commonly used in rearing labs. This firm, upon receipt of your faxed purchase order, will immediately ship, or arrange to have shipped from a closer distribution point, your order at advantageous pricing. Applicable UPS published rates will be paid and added to your invoice. WLMA personnel have spoken with quite a number of our subscribers, and visited labs in order to compile the list, which follows on page 2. WLMA officials tell us that this is just the first step in the program that they are designing for our members. Their intention is to continually add other products (including chemicals and laboratory apparatus and supplies) which will enable the entire scientific community to purchase competitively and effortlessly. There are no minimum order requirements, and there are price breaks for larger orders. So, if you want information on such things, or if a product which you use is not listed, or you wish to request names of our subscribers who are already dealing with this concern, please call WLMA at 201 333-5431. To order simply FAX your orders to 201 333-2777.

WLMA  
125 Monitor Street  
Jersey City, NJ 07304

## WLMA PRODUCT LIST:

<u>Kimberly Clark</u> Rag on a Roll (6 rolls) #35411	\$45.50
Kimtowel light duty white (60/280) #34155	\$51.50
<u>Ice Cream Containers</u>	
Gallon (40 Pack)	\$44.00
½ Gallon (50 Pack)	\$24.00
Quart (100 Pack)	\$24.00
Pint (200 Pack)	\$39.00
½ Pint (300 Pack)	\$48.00
<u>1 Ounce Plastic Cups</u>	
SOLO # p101 or exact comparable 5000/cs - graduated markings	\$35.00
Paper Lid Interior dia. fit 5000/cs	\$25.00
PO-Bear clear rigid plastic (Substitute for Fill-Rite)	\$42.50
Plastic Lid Outside diameter snap fit 2500/cs (also fits Solo)	\$15.50
<u>Sweetheart</u>	
MTrene MC8S 8 oz. plastic 1000/cs	\$58.50
#S-308 8 oz. waxed paper cup 1000/cs	\$52.00
Paper tab lids: #DS 308	\$24.00
#DS 306	\$23.00
<u>Solo (comparables for Sweetheart)</u>	
Solo Mg8w 8 oz. plastic	\$19.00
Solo 708 HL 8 oz waxed paper	\$38.00
L708 Plastic lids 1000/cs	\$26.50
<u>Aluminum Foil</u>	
Heavy duty 18" X 25' 24 rolls/cs	\$28.00
<u>Bleach</u> 6 gallons	\$ 7.00
<u>Antimicrobial Hand &amp; body Cleanser</u>	
Dispenser bottle 16 oz. 12/cs	\$28.50
<u>Kraft Paper</u> 40 dw 36" wide 9" dia.	\$16.00
<u>Mica Wax Equivalent</u> 18" X 1200'	\$33.50
<u>Bleached Dry Wax Paper</u> 36" 40/48# 9" diameter	\$87.50

Frass Newsletter is a cooperative effort among the Insect Rearing Group, designed to provide a vehicle for communication among scientists involved in all aspects of insect rearing. Please participate by sending editorial comments, short papers on new rearing techniques, information requests, requests for starter colonies, your source list for supplies, items for sale or trade, announcements, appropriate meeting dates, or other related news items. This issue is brought to you by Novo Nordisk Entotech, Inc. Edited by Dennis R. Edwards, Novo Nordisk Entotech, Inc., 1497 Drew Avenue, Davis, CA 95616. 916 757-4700.

FRASS is available to those scientists interested in rearing. Send subscription requests to: Ron Wheeler, Chevron Chemical Corp., Box 4010, Richmond, CA 94804.



## FORMAL CONFERENCE: INSECT REARING Human Issues in Insect Rearing

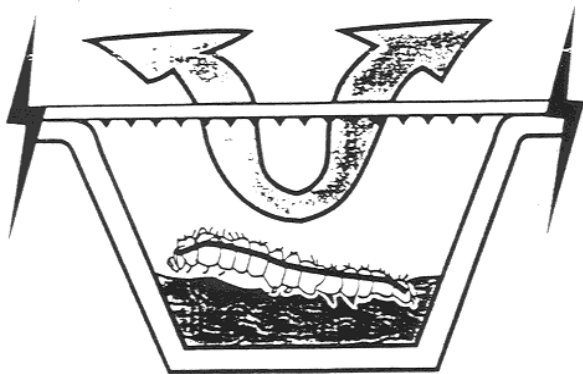
At the 1992 ESA meeting in Baltimore, MD the Insect Rearing Conference will be begin Tuesday morning December 8th, at 8:00, in room 305. This year's Organizer and Moderator are Sven Strnad, American Cyanamid Co. and G.L. Bernon, USDA-APHIS, Otis Methods Development Center.

## EFFICIENCY IN INSECT REARING

by David Haines, Product Market Manager  
Oliver Products Company

Over the years the most commonly used insect rearing container has been an individual plastic cup with a polyethylene coated paperboard insert cap. However, the increasing costs of the cups and caps along with the labor required to handle each cup individually, prompted a search for a less costly and labor intensive rearing container.

Oliver Products Company, based in Grand Rapids, Michigan offers an alternative method of rearing which is more efficient and less expensive than the standard method. Unlike the plastic cups and caps where gnawing larvae have been known to escape by eating through the container, a multicellular plastic tray can be covered with a sheet of porous lidding material such as paper, Tyvek®, or punched film, to be heat-sealed to secure insects in their cells. Oliver's unique dot pattern adhesive coated lidding allows the insect to breathe, while ensuring a secure seal and easy lid removal when pupae are mature. The heat sealed lids peel back smoothly without disturbing the tray contents. Several lidding materials are available according to application requirements. Figure A illustrates how the lidding allows for sufficient exchange of gases for normal larval growth to occur, as well as maintenance of desired dietary moisture conditions.



Side view of single cell

Tyvek® is a registered trademark of the DuPont Corporation.

## SPACE & LABOR EFFICIENCY

The plastic multicellular trays with the heat-sealed lids require less storage space than individual cups. Twenty 6" X 11" trays equaling 640 cells fits in the same amount of space as 210 individual cups stacked in cartons. The multi-cellular design also reduces handling which leads to considerable savings in labor and time.

## COST SAVINGS

Significant savings can be realized when using rearing trays versus individual cups. In addition, because the diet is maintained at appropriate moisture conditions, additional savings can be realized.

## LIDDING & EQUIPMENT AVAILABILITY

Oliver Products offers a range of lidding materials and dot pattern adhesives to provide optimum porosity according to specific larval habits and dietary needs. Lids can be made of lightweight, breathable papers for non-gnawing larvae, or tough, durable punched film that will contain most gnawing larvae. Lidding materials can be purchased in single sheets or roll stock.

Semi-or fully automated heat sealing equipment is available and can be purchased directly from Oliver Products. Machinery ranges from a manually operated, table top liddler to fully automated tray lidding system. For either machine, switching from one container size to another is easy through simply changing the interchangeable tray pockets.

Decreased cost for larval diet and containers as well as improved space and labor efficiency are the benefits that this new system brings to the insect rearing industry. Oliver Products lidding material and heat sealing equipment are an effective, economical replacement of individual rearing containers.

For more information contact David Haines, Oliver Products Company, 445 Sixth St. N.w., Grand Rapids, MI 49504. Phone 800 253-3893 or fax 616 456-5820.

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