UNIVERSITY OF FLORIDA | Cooperative Extension Service
Institute of Food and Agricultural Sciences

PACKINGHOUSE NEWSLETTER

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Packinghouse Newsletter No. 183
December 7, 1998

Key Index Words: Electrical Enclosures

ENCLOSURES FOR ELECTRICAL COMPONENTS

Bill Miller
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Packinghouses provide a rather harsh environment for electrical installations. Enclosures are considered the principal shield to guard electrical components from environmental factors. With the introduction of dedicated microprocessors for process control and personal computers as operator workstations in plants, there has been a need for better protection. Material selection may include steel, stainless steel and aluminum. However, plastic enclosures have become popular due to their lightweight assembly and chemical resistance. Reservations with plastic enclosures have been cost and their minimal electromagnetic interference shielding. Enclosure standards have been developed by NEMA (National Electrical Manufacturer's Assoc.) in the US and IEC (International Electrotechnical Commission) for Europe. Some of the ones more typically encountered are listed below.

Protection Level	Standards
Fingers	NEMA 1, IP 20
Falling dirt and water	NEMA 2, IP 22
Windblown dust, rain	NEMA 3, IP 53
Hosedown	NEMA 4, IP 65
Hosedown and corrosion	NEMA 4X, IP 65
Temporary submersion	NEMA 6, IP 67

With enclosures, other standards also may need to be considered. For example, explosive areas are defined by the National Fire Protection Association (NFPA) and OSHA would be responsible for lock-out protection requirements. Detail on NEMA can be found at their web site, http://www.nema.org

PERSONNEL CHANGES

Florida Department of Citrus, Lake Alfred

The Florida Department of Citrus Scientific Research, Fresh Fruit under the direction of Dr. Mohamed Ismail has recently undergone some important personnel changes. Two scientists have left and two others have been assigned to vacant positions.

Dr. Bela Buslig retired after 31 years of service. During that time his office moved from the Citrus Research & Education Center (CREC), Lake Alfred to the USDA, Winter Haven and back to CREC. His work included development of color measurement equipment, knowledge of volatile flavor components, and instrumental analysis. He is currently working part-time for the USDA, ARS in Winter Haven.

Dr. Peter Petracek left after nearly six years as the citrus peel disorder scientist. He joined Abbott Labs. It is hard to believe that the grass is greener in Chicago. Dr. Petracek has the unusual talent of being both technical and applied in his approach to research. He is best known in Florida for defining and finding a means of control for postharvest pitting of citrus. Dr. Petracek's positive approach and work ethic carried over to others and will be missed.

Dr. Hauting Dou worked with Dr. Petracek for three years and has been appointed to the citrus peel injury position. Dr. Dou is continuing the postharvest pitting research and is also working on other postharvest peel problems. Dr. Dou is originally from China where his research area was on agrichemistry. His experience includes plant nutrition and physiology at CREC and Justus-Liebig University, Germany. He has wide knowledge from field production to postharvest technology and promises to be a productive member of the CREC postharvest team.

Mark Thomas has taken the position of Food Engineer. His primary responsibility will be fresh peeled and fresh cut citrus. He is a 1995 graduate of the University of Florida. He was employed since then by Meyer-Sterner Industries, a food equipment manufacturer in Gainesville, Florida.

University of Florida, Citrus REC, Lake Alfred

Dr. Renée Goodrich is the new Processing Extension Specialist at Lake Alfred. Her education was at Cornell University and the University of Florida. Dr. Goodrich has experience in the processing industry with Tropicana Products, Bradenton, Florida and Ocean Spray Cranberries, Lakeville, Massachusetts. Her duties at CREC interacts with the fresh fruit industry, including fresh squeezed juice, prepeeled citrus, citrus sections, and the development of Good Manufacturing Practices (GMPs) and Hazard Analysis Critical Control Points (HACCP) protocols.

University of Florida, Indian River REC, Ft. Pierce

Dr. Mark Ritenour recently joined the Indian River REC in their new undergraduate teaching program. His assignment is 70% postharvest and plant physiology teaching and 30% citrus packinghouse and postharvest extension. Following his education at the University of California, Davis, he has postharvest research experience at the University of California Kearney Agricultural Center (kiwifruit & cherries) and Washington State University, Wenatchee (apples). Dr. Ritenour has begun projects with citrus packinghouses.

THIRTY-EIGHTH ANNUAL CITRUS PACKINGHOUSE DAY
THURSDAY, AUGUST 19, 1999
CITRUS RESEARCH AND EDUCATION CENTER
700 EXPERIMENT STATION ROAD, LAKE ALFRED, FL 33850

Mark your calendar for Citrus Packinghouse Day. Registration begins at 8:30 AM and the program begins at 9:30 AM. Tickets for lunch may be purchased at registration. There is no meeting registration fee and reservations are not required. The program will include fruit internal and external quality. As always there will be a full house of commercial exhibitors with goods and services for the citrus fresh fruit industry.

AVAILABLE PUBLICATIONS

Available from Dr. W. F. Wardowski, Citrus REC, 700 Experiment Station Road, Lake Alfred, Florida 33850

The Degreening of 'Fallglo' Tangerine, by Peter D. Petracek and Lymari Montalvo. 1997. J. Amer. Soc. Hort. Sci. 122(4):547-552.

Cellulase Activity and Gene Expression in Citrus Fruit Abscission Zones during and after Ethylene Treatment, by William C. Kazokas and Jacqueline K. Burns. 1998. J. Amer. Soc. Hort. Sci. 123(5)781-786.

Enhanced Activity of Abscission Enzymes Predisposes Oranges to Invasion by *Diplodia natalensis* during Ethylene Degreening, by G. Eldon Brown and Jacqueline K. Burns. 1998. Postharvest Biol. and Techn. 14:217-227.

Pattern Recognition Models for Spectral Reflectance Evaluation of Apple Blemishes, by W. M. Miller, J. A. Throop, and B. L. Upchurch. 1998. Postharvest Biol. and Techn. 14:11-20.

Available from Frank Kelsey, Citrus Systems, Fairway Avenue, Box 1708, Lakeland, Florida 33802

Response of Citrus Fruit to High-pressure Washing, by Peter D. Petracek, D. Frank Kelsey and Craig Davis. 1998. J. Amer. Soc. Hort. Sci. 123(4):661-667.

CREC HOME PAGE

Does this look familiar? It does if you have visited the CREC home page http://tangelo.lal.ufl.edu/ on the world wide web. The page designed and maintained by Pam Russ, CREC librarian, is much easier to read in living color. You can travel from this page to the main IFAS University of Florida campus department. Try it, you'll like it.