

03020361

FORM NRC-313 I (1-79) 10 CFR 30		U.S. NUCLEAR REGULATORY COMMISSION  <b>1. APPLICATION FOR:</b> <i>(Check and/or complete as appropriate)</i> <div style="text-align: center; font-size: 1.2em;"> <input checked="" type="checkbox"/> <b>a. NEW LICENSE</b> <span style="margin-left: 20px;">L 19618</span> </div> <div style="text-align: center; font-size: 1.2em;"> <input type="checkbox"/> <b>b. AMENDMENT TO</b>          LICENSE NUMBER       </div> <div style="text-align: center; font-size: 1.2em;"> <input type="checkbox"/> <b>c. RENEWAL OF:</b>          LICENSE NUMBER       </div>	
<b>APPLICATION FOR BYPRODUCT MATERIAL LICENSE INDUSTRIAL</b>			
See attached instructions for details.  Completed applications are filed in duplicate with the Division of Fuel Cycle and Material Safety, Office of Nuclear Material Safety, and Safeguards, U.S. Nuclear Regulatory Commission, Washington, DC 20555 or applications may be filed in person at the Commission's office at 1717 H Street, NW, Washington, D. C. or 7915 Eastern Avenue, Silver Spring, Maryland.			
<b>2. APPLICANT'S NAME</b> <i>(Institution, firm, person, etc.)</i>  Agricultural Experiment Station  TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION (671) 734-3113		<b>3. NAME OF PERSON TO BE CONTACTED REGARDING THIS APPLICATION</b>  R. Muniappan  TELEPHONE NUMBER: AREA CODE - NUMBER EXTENSION	
<b>4. APPLICANT'S MAILING ADDRESS</b> <i>(Include Zip Code)</i>  Agricultural Experiment Station University of Guam Mangilao, Guam 96913 USA		<b>5. STREET ADDRESS WHERE LICENSED MATERIAL WILL BE USED</b> <i>(Include Zip Code)</i>  Same as #4  <div style="font-size: 0.8em;">           Applicant's Check No. 1154 11/10/79            Amount/Fee Category: Check Reg. Fee            Date of Fee Check Recd. 2/29/83         </div>	
(IF MORE SPACE IS NEEDED FOR ANY ITEM, USE ADDITIONAL PROPERLY KEYED PAGES.)			
<b>6. INDIVIDUAL(S) WHO WILL USE OR DIRECTLY SUPERVISE THE USE OF LICENSED MATERIAL</b> <i>(See Items 16 and 17 for required training and experience of each individual named below)</i>			
FULL NAME		TITLE	
a. R. Muniappan		Associate Director	
b. Calvin Saruwatari		Agricultural Engineer	
c. Jefren Demeterio		Soil Scientist	
<b>7. RADIATION PROTECTION OFFICER</b>  R. Muniappan		Attach a resume of person's training and experience as outlined in Items 16 and 17 and describe his responsibilities under Item 15.	
8. LICENSED MATERIAL			
L I N E  NO.	ELEMENT AND MASS NUMBER  A	CHEMICAL AND/OR PHYSICAL FORM  B	NAME OF MANUFACTURER AND MODEL NUMBER <i>(If Sealed Source)</i>  C
			MAXIMUM NUMBER OF MILLICURIES AND/OR SEALED SOURCES AND MAXIMUM ACTI- VITY PER SOURCE WHICH WILL BE POSSESSED AT ANY ONE TIME  D
(1)	Americium	CPN 131	131
(2)	Beryllium	Sealed Source	50 millicurie per
(3)			source for more than
(4)			one resource.
DESCRIBE USE OF LICENSED MATERIAL E			
(1)	To be used in C.P.N. Model CPN 131 to test soil moisture in the field.		
(2)			
(3)	8606050482 860313 REG5 LIC30 56-19618-01 PDR		
(4)			

9. STORAGE OF SEALED SOURCES			
LINE NO.	CONTAINER AND/OR DEVICE IN WHICH EACH SEALED SOURCE WILL BE STORED OR USED. A.	NAME OF MANUFACTURER B.	MODEL NUMBER C.
(1)	Manufacturer's equipment container	Campbell Pacific Nuclear	503
(2)			
(3)			
(4)			

10. RADIATION DETECTION INSTRUMENTS						
LINE NO.	TYPE OF INSTRUMENT A.	MANUFACTURER'S NAME B.	MODEL NUMBER C.	NUMBER AVAILABLE D.	RADIATION DETECTED (alpha, beta, gamma, neutron) E.	SENSITIVITY RANGE (milliroentgens/hour or counts/minute) F.
(1)	N/A					
(2)						
(3)						
(4)						

11. CALIBRATION OF INSTRUMENTS LISTED IN ITEM 10	
<input type="checkbox"/> a. CALIBRATED BY SERVICE COMPANY NAME, ADDRESS, AND FREQUENCY  N/A	<input type="checkbox"/> b. CALIBRATED BY APPLICANT <i>Attach a separate sheet describing method, frequency and standards used for calibrating instruments.</i>  N/A

12. PERSONNEL MONITORING DEVICES		
TYPE (Check and/or complete as appropriate.) A.	SUPPLIER (Service Company) B.	EXCHANGE FREQUENCY C.
<input checked="" type="checkbox"/> (1) FILM BADGE  <input type="checkbox"/> (2) THERMOLUMINESCENCE DOSIMETER (TLD)  <input type="checkbox"/> (3) OTHER (Specify): _____ _____ _____	R.S. Landauer Jr. & Co. 999 N. Sepulveda Blvd. El Sengundo, CA. 90245	<input type="checkbox"/> MONTHLY <input checked="" type="checkbox"/> QUARTERLY <input type="checkbox"/> OTHER (Specify): _____ _____ _____

13. FACILITIES AND EQUIPMENT (Check where appropriate and attach annotated sketch(es) and description(s).)
<input type="checkbox"/> a. LABORATORY FACILITIES, PLANT FACILITIES, FUME HOODS (Include filtration, if any), ETC. <input type="checkbox"/> b. STORAGE FACILITIES, CONTAINERS, SPECIAL SHIELDING (fixed and/or temporary), ETC. <input type="checkbox"/> c. REMOTE HANDLING TOOLS OR EQUIPMENT, ETC. <input type="checkbox"/> d. RESPIRATORY PROTECTIVE EQUIPMENT, ETC.

14. WASTE DISPOSAL
a. NAME OF COMMERCIAL WASTE DISPOSAL SERVICE EMPLOYED  <div style="text-align: center;">Manufacturer</div>
b. IF COMMERCIAL WASTE DISPOSAL SERVICE IS NOT EMPLOYED, SUBMIT A DETAILED DESCRIPTION OF METHODS WHICH WILL BE USED FOR DISPOSING OF RADIOACTIVE WASTES AND ESTIMATES OF THE TYPE AND AMOUNT OF ACTIVITY INVOLVED. IF THE APPLICATION IS FOR SEALED SOURCES AND DEVICES AND THEY WILL BE RETURNED TO THE MANUFACTURER, SO STATE

# INFORMATION REQUIRED FOR ITEMS 15, 16 AND 17

Describe in detail the information required for Items 15, 16 and 17. Begin each item on a separate page and key to the application as follows:

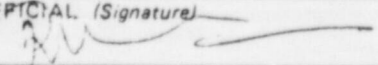
15. RADIATION PROTECTION PROGRAM. Describe the radiation protection program as appropriate for the material to be used including the duties and responsibilities of the Radiation Protection Officer, control measures, bioassay procedures (if needed), day-to-day general safety instruction to be followed, etc. If the application is for sealed source's also submit leak testing procedures, or if leak testing will be performed using a leak test kit, specify manufacturer and model number of the leak test kit.  
CPN Approved Training Certificates
16. FORMAL TRAINING IN RADIATION SAFETY. Attach a resume for each individual named in Items 6 and 7. Describe individual's formal training in the following areas where applicable. Include the name of person or institution providing the training, duration of training, when training was received, etc.
  - a. Principles and practices of radiation protection.
  - b. Radioactivity measurement standardization and monitoring techniques and instruments.
  - c. Mathematics and calculations basic to the use and measurement of radioactivity.
  - d. Biological effects of radiation.
17. EXPERIENCE. Attach a resume for each individual named in Items 6 and 7. Describe individual's work experience with radiation, including where experience was obtained. Work experience or on-the-job training should be commensurate with the proposed use. Include list of radioisotopes and maximum activity of each used.

## 18. CERTIFICATE

(This item must be completed by applicant)

*The applicant and any official executing this certificate on behalf of the applicant named in Item 2, certify that this application is prepared in conformity with Title 10, Code of Federal Regulations, Part 30, and that all information contained herein, including any supplements attached hereto, is true and correct to the best of our knowledge and belief.*

WARNING.—18 U.S.C., Section 1001; Act of June 25, 1948; 62 Stat. 749; makes it a criminal offense to make a willfully false statement or representation to any department or agency of the United States as to any matter within its jurisdiction.

a. LICENSE FEE REQUIRED (See Section 170.31, 10 CFR 170)	b. CERTIFYING OFFICIAL (Signature) 
	c. NAME (Type or print) R. Muniappan
(1) LICENSE FEE CATEGORY:	d. TITLE Associate Director
(2) LICENSE FEE ENCLOSED \$ 110.00	e. DATE 6/22/83

70014



# Certificate Of Completion

This is to certify that R. MUNIAPPAN has completed the basic training  
course on *Radiation Safety and Use of Nuclear Soil Gauges*, held  
this 21ST day of JANUARY 19 83, held at UNIV. OF GUAM City of AGANA  
State of GUAM by Campbell Pacific Nuclear Corporation.

DAVID R. HART

INSTRUCTOR

PATRICK J. CAMPBELL

RADIATION SAFETY OFFICER

# Certificate of Completion

This is to certify that J. L. DEMETERIO has completed the basic training  
course on *Radiation Safety and Use of Nuclear Soil Gauges*, held  
this 21<sup>ST</sup> day of JANUARY 19 83, held at UNIV. OF GUAM City of AGANA

State of GUAM by Campbell Pacific Nuclear Corporation.

*W. H. HART*

INSTRUCTOR

*W. H. CAMPBELL*  
RADIATION SAFETY OFFICER

# Certificate Of Completion

This is to certify that CALVIN LARUWATARI has completed the basic training  
course on *Radiation Safety and Use of Nuclear Soil Gauges*, held  
this 21ST day of JANUARY 19 83, held at UNIV. OF GUAM City of AGANA  
State of GUAM by Campbell Pacific Nuclear Corporation.

DAVID HART

INSTRUCTOR

PATRICK J. CAMPBELL

RADIATION SAFETY OFFICER



CALVIN A. SARUWATARI

BUSINESS ADDRESS:

Agricultural Experiment Station  
College of Agriculture and Life Sciences  
University of Guam  
UOG Station  
Mangilao, Guam 96913

HOME (MAILING) ADDRESS:

Box 5206 UOG Station  
Mangilao, Guam 96913

PRESENT POSITION:

Instructor (Agricultural Engineering)

EDUCATION:

1977 - Graduate Division, University of Hawaii at Manoa  
1981 Master's of Science in Agricultural Engineering,  
December, 1981

1976 - College of Arts and Sciences, University of Hawaii  
1977 at Manoa. Bachelor's of Science in Geology-Geophysics,  
May, 1977

1975 College of Continuing Education and Community Services,  
University of Hawaii at Manoa  
Unclassified graduate

1970 - College of Engineering, University of Hawaii at Manoa  
1975 Bachelor's of Science in Civil Engineering, May, 1975

WORK EXPERIENCE:

1981 - College of Agriculture and Life Sciences  
present University of Guam  
Position: Instructor (Agricultural Engineering)

1977 - Department of Agricultural Engineering, University of Hawaii  
1981 at Manoa  
Position: Graduate (Research) Assistant,

PROFESSIONAL AND HONOR SOCIETIES:

American Society of Agricultural Engineers  
American Society of Agronomy  
American Society of Civil Engineers  
American Society of Photogrammetry

CALVIN A. SARUWATARI  
Page Two

American Water Resources Association  
Gamma Sigma Delta (Honor Society of Agriculture)  
Soil Science Society of America  
United States Committee on Irrigation, Drainage, and Flood  
Control

PUBLICATIONS:

Saruwatari, C.A. and I.P. Wu. 1982. Hydraulics of Biwall Drip  
Irrigation Laterals. Paper presented at the 1982 Summer  
Meeting, American Society of Agricultural Engineers, Madison,  
Wisconsin. Paper No. 82-2063.

Saruwatari, C.A. 1981. Hydraulics of Dual-chambered Drip Irrigation  
Lateral Lines. M.S. Thesis, Agricultural Engineering Department,  
University of Hawaii.

Wu, I.P., C.A. Saruwatari, and H.M. Gitlin. Design of Drip Irrigation  
Lateral Length of Uniform Slopes. Irrigation Science. (Accepted  
for publication).



## RESUME

Name:

R. Muniappan

Address (Office):

Associate Dean/Associate Director/Professor  
Agricultural Experiment Station  
College of Agriculture and Life Sciences  
University of Guam  
UOG Station, Mangilao, Guam 96913

Address (Home):

P.O. Box 8784  
Yona, Guam 96914

Education:

1. BSc (Ag) University of Madras, 1963
2. MSC (Ag) University of Madras, 1965
3. Ph.D. Oklahoma State University, 1969

1. Received two gold medals
2. Received Merit Scholarship
3. Twice on President's Honor Roll

Professional Experience:

Professor/Associate Director	Since March, 1983
Associate Dean, UOG	Dec. 1976 - Jan. 1983
Associate Professor/UOG	1976 - Dec. 1976
Chief Plant Industry, UOG	1975 - 1976
Chief Plant Industry, Dept. of Agri.	Sept. 1976 - Mar. 1975
Agriculturist III, Entomologist	Nove. 1970 - Aug. 1971
Post Doctoral Research Associate	
Dept. of Entomology	
Oklahoma State University	Aug. 1979 - Oct. 1970
Graduate Research Assistant	
Dept. of Entomology	
Oklahoma State University	Jan. 1968 - Aug. 1969
Assistant Lecturer	
Agricultural College	
University of Madras	Jul. 1965 - Aug. 1967

Professional Societies:

Entomological Society of America  
Entomological Society of the Philippines  
Hawaiian Entomological Society  
American Society for the Advancement of Science  
American Institute of Biological Sciences  
Society for the Advancement of Breeding Researchers in Asia  
and Oceania

70014

American Registry of Professional Entomologists  
Association Western Agricultural Experiment Station Directors  
Phi Kappa Phi  
Phi Sigma

Journal Subscriptions:

BioScience  
Science  
SABRAO Journal  
Journal of Economic Entomology  
Annals of the Entomological Society of America  
Bulletin of the Entomological Society of America  
Proceedings of the Hawaiian Entomological Society  
National Geographic Magazine  
Philippine Entomologist

Pacific Daily News - Extension Articles:

- |   |          |
|---|----------|
| 1. Problem Weed Invades Guam                                      |          |
| 2. Pacific Taro Grown for Food, Beauty                            | 11/14/82 |
| 3. Flowers Belong to Island World                                 | 9/26/82  |
| 4. Cooperation Key to Agricultural Success                        | 9/19/82  |
| 5. Use Home Gardening to Counter Inflation                        | 8/29/82  |
| 6. Melon Fly Plays Havoc with Local Crops                         | 7/18/82  |
| 7. Tropical Coffee Sold Worldwide                                 | 8/11/82  |
| 8. Trees Provide Fruit for Guam                                   | 4/ 4/82  |
| 9. Future Research Plans Announced                                | 2/28/82  |
| 10. Research Continues in Inarajan Fields                         | 2/ 7/82  |
| 11. Cultivate Orchids for Beauty                                  | 1/10/82  |
| 12. Try Some Wild Yams for Christmas.                             | 12/20/81 |
| 13. Beautify Guam with Bromeliads                                 | 12/13/81 |
| 14. Research Benefits Local Agriculture                           | 8/30/81  |
| 15. Snail Falls Victim to Flatworms                               | 1/25/81  |
| 16. Butterflies can Harm Ornamental Plants, Too                   | 9/14/80  |
| 17. Three Local Butterflies are Agricultural Pests                | 9/ 7/80  |
| 18. Common Pests Prey on Roses                                    | 6/29/80  |
| 19. Whitefly May Hitchhike to Guam                                | 6/ 1/80  |
| 20. Guam's Role in the Worldwide Shift to Tropical<br>Agriculture | 5/11/80  |
| 21. Don't Dabble in Muddauber's Nest                              | 2/17/80  |
| 22. Mealybug on it's Way  | 1/13/80  |
| 23. Jackfruit and it's Roots                                      | 12/ 9/79 |
| 24. Guam's Wild Vegetation Edible                                 | 11/ 4/79 |
| 25. Fight Snails with Various Control Methods                     | 6/24/79  |
| 26. Soil Testing Aids Crop Protection                             |          |
| 27. Beware of Local Poisonous Insects                             |          |

Papers Presented:

1. The Giant African Snail - Integrated Pest Management course held in Tonga, 1982
2. Influence of Pests on Traditional Crops - Integrated Pest Management

- course held in Tonga, 1982.
3. The Future of Agriculture in Guam - Tumon Bay Rotary Club, 1982.
4. Agriculture in the Pacific - 13th Annual Convention of the Pest Control Council of the Philippines, Baguio, 1982.
5. Genetic Resources Conservation Possibilities in Guam - International Board for Plant Genetic Resources Meeting, Tsukuba, 1980.
6. Host Preference of the Philippines Lady Beetle - International Congress of Entomology, Washington, D.C, 1976.
7. Host Preference of Cruciferous Crop - Annual Meeting of the Entomological Society of America, Honolulu, 1976.
8. Vegetable Crop Pests in the Pacific - Annual Meeting of the Entomological Society of America, Honolulu, 1976

Publications:

- 1981 Genetic Resources Conservation Possibilities in Guam. In: Crop Genetic Resources of the Far East and the Pacific. Ed Williams, J.T., and J.L. Creech. International Board for Plant Genetic Resources.
- 1981 Environmental Impact Statement for the EDA grant.
- 1980 Biological Control of the Palau Coconut Beetle, Brontispa Palauensis (Esaki and Chjo) on Guam. Micronesica. 16:359-360.
- 1980 Predator Deterant Effect of Leucaena leucocephala on the Coccinellid, Cryptolaemus montrouzieri. Micronesica. 16:360-362
- 1978 Insect Pests of Cucurbitaceous Crops and Their Control. Guam CES Publication.
- 1978 Biological Control of Insects. South Pacific Commission Bulletin.
- 1977 Impact of Pesticide Laws on Pest Management on Guam. In: Proceedings Conference on the Impact of Pesticide Laws. Ed: Motooka, P.S., East West Center p. 58-62.
- 1977 Pests on Guam Series (10).
- 1974 The Giant African Snail. Guam Recorder 4(1)50-51.
- 1974 Biology of the Poinciana Looper, Pericyma cruegeri (Butler) on Guam. Micronesica. 10 (2):273-278
- 1973 'Conservation of Plants,' In Sub-Regional Seminar on Conservation Education. South Pacific Commission. 33-34.
- 1973 An Outline of Insects in Guam, In: The Nature of Island of Guam. An Approach to Island-Ecosystem. Ciba Biology Teachers Association Report of the Biological Excursion to Guam.
- 1972 Interaction Between Plant Resistance and Parasitism Against the Greenbug on Barley and Sorghum. Annals of the Entomological



Society of America. 65(3):650-655.

- 1972 Effect of the Antifeeding Compound AC-24055 on the Philippines Lady Beetle. Journal of Economic Entomology. 1482-1483.
- 1972 Insects Collected from the Materials that Came to Guam from Different Countries. FAO Information letter 92. 11pp.
- 1970 Biological Control of the Greenbug by the Spider, Phidippus Audax Journal of Economic Entomology (63(5):1712
- 1970 Biology of the Crab Spider, Misumenops celer. Annals of the Entomological Society of America. 63(6): 1718-1722.
- 1970 Record of New Alternative host Plants for Heliothis armigera Hb. in South India. Science and Culture 36(4):235-236.
- 1967 A Note on Insects Occurring on Cassia auriculata L. in South India. Madras Agricultural Journal 54(4):197-199.
- 1965 Investigations on Two Nematode Parasites of Rice, Hirschmanniella oryzae and Aphelenchoides besseyi. Madras Agricultural Journal. 52(8):371.
- 1964 On the Occurrence of the White Tip Nematode of Rice, Aphelenchoides besseyi Christie, 1942 in Madras State. Madras Agricultural Journal 51(12):510-511.

Letters to the Editor: (Local)

- |                             |                    |          |
|-----------------------------|--------------------|----------|
| 1. William's Error's        | Pacific Daily News | 2/1/82   |
| 2. Of Farming and Elephants | PDN                | 1/14/82  |
| 3. Safe Standards           | PDN                | 5/6/81   |
| 4. Telephones               | PDN                | 3/16/82  |
| 5. Potatoes on Guam         | PDN                | 11/27/82 |
| 6. Not Customs              | PDN                | 9./17/82 |

Letters to the Editor: (Off-Island)

- |                                  |  |
|----------------------------------|--|
| 1. Support for SPC-SPEC Merger   | Pacific Island Monthly,<br>March, 1982 |
| 2. The SPC and it's Rival Bodies | Pacific Island Monthly,<br>March, 1982 |
| 3. Snail Power                   | New Pacific Magazine                   |

Committee Membership:

- 1. Member, Entomology Committee, Pacific Science Association
- 2. Member, Western Director's Association
- 3. Member, Pacific Basin Administrative Group, Section 406
- 4. Member, Animal and Plant Quarantine Committee, Guam
- 5. Member, Animal Introduction Committee, Fish and Wildlife Division, Guam

6. Member, Research Committee, University of Guam
7. Member, CALS Academic Affairs Committee
8. Served as a member in Selection Committee of the Academic Vice President and Dean of Library Sciences

Off-Island Conference Attended:

1. 15th International Congress of Entomology, Washington, D.C. 1976.
2. Annual Meeting of the Entomological Society of America, Honolulu, Hawaii, Dec., 1976.
3. East West Center Conferences on Pesticide Laws, Honolulu, Hawaii, Dec., 1976.
4. Technical Meeting of the Regional Research Project, W-84, Honolulu, Hawaii, Dec., 1976.
5. USDA Training for Administrators, Washington, D.C., 1977.
6. Pesticide Impact Assessment Meeting, Reno, Nevada, 1977.
7. National Association of Land-Grant Universities and State Colleges Annual Meeting, Washington, D.C., 1978.
8. Summer Meeting of the Western Agricultural Station Directors, Bozeman, Montana.
9. Summer Meeting of the Western Agricultural Experiment Station Director, Estes Park, Colorado.
10. Summer Meeting of the Western Agricultural Experiment Station Directors, Wyoming
11. Annual Meeting of the National Association of Land-Grant Universities and State Colleges, Atlanta, Georgia, Nov., 1980.
12. Intercongress of the Pacific Science Association, Singapore, 1981.
13. 13th Annual Meeting Philippine Pest Control Council, Baguio, Philippines, May, 1982.
14. Integrated Pest Management Training Course organized by USAID, GTZ and SPC.
15. Workshop on Land-Grant Program, Ponape, 1982.
16. 96th Annual Meeting of the National Association of Land-Grant Universities and State Colleges, St. Louis, Nov. 1982.
17. National Administrative Group Meeting of the Section 406, Washington, D.C., 1981.
18. Pacific Basin Administrative Group Meeting, Honolulu, Hawaii, 1980, 1981, and 1983.
19. Meeting for the Initiation of a Consortium for Root Crops, Atlanta, Georgia.
20. USAID Meeting for the Selection of a University to develop plans for a consortium on Pest Management.
21. Meeting with the Plant Quarantine officials of the Japanese Ministry of Agriculture, Forestry and Fisheries (a delegate from Guam). Tokyo, 1979.
22. International Board for Plant Genetic Resources meeting for the Pacific, Tsukuba, Japan, 1980.

23. USAID workshop on Integrated Pest Management in Tonga, October 1982.
24. University of Hawaii workshop on Biomass Energy in Saipan, November 1982.
25. Pacific Science Congress, Dunedin, New Zealand, February 1983.
26. USAID symposium of minimum data sets for technology transfer, India, March 1983



BIO-DATA

J.L. Demeterio

Education:

B.S., 1961	University of the Philippines (Agricultural Chemistry)
M.S., 1968	Kansas State University (Soil Chemistry)
Ph.D., 1969	Kansas State University (Soil Chemistry)

Work Experience:

1961-64	Research Instructor, U.P at Los Banos
1964-69	Grad. Res. Asst., Kansas State University
1969-72	Post doctoral Fellow, Extension Specialist in Soil Testing Michigan State University
1972-75	Station Chemist - city of Lansing Board of Water and Light
1975-Present	Assistant/Associate Professor, University of Guam.

Membership in Professional Associations:

Soil Science Society of Agronomy  
American Society of Agronomy  
Membership Committee for the U.S. Territories, Chairman  
International Society of Soil Science  
American Association for the Advancement of Science  
Sigma Xi, The Scientific Research Society

Extra - Curricular Activities:

1. Guam Marainas Lions Club (President, 1979-80)
2. University of the Philippines Alumni (Guam) (President, 1983-84)
3. Scout Master, Troop 32, Brodie Memorial School
4. Scottish Rite Bodies, Agana, Guam

Grants:

1. Office of Water Resources and Technology, \$20,000, 1976-78.
2. U.S.D.A. Summer Apprenticeship \$2,500 1981-82  
1,250 1982-83

## Publications

- Rudgers, L.A., J.L. Demeterio, G.M. Paulsen and R. Ellis Jr. 1970. Interaction Among Atrazine, Temperature, and Phosphorus-Induced Zinc Deficiency in Corn (Zea mays L.) SSSAP. 34(2):240-244.
- Demeterio, J.L., G.M. Paulsen, and R. Ellis Jr. 1972. Modulation and Nitrogen Fixation of Two Soybean Varieties as Affected by Phosphorus and Zinc Nutrition. Agron. J. 64(5):566-568.
- Demeterio, J.L. R. Ellis Jr., and G.M. Paulsen. 1973. Clay Mineralogy of Philippines Negros Soils. Philippine Sugar Institute Quaterly. 19(2):34-36.
- Doll, E.C., J. Shickluna and J.L. Demeterio. 1972. Levels and Changes in Soil Tests in Lower Michigan 1962-1972. Research Report 197. M.S.U. Agricultural Experiment Station, East Lansing, Michigan.
- Demeterio, J.L. 1970. Completion Report M.S.U.-TVA Fertilizer on Effects of High Fertility Levels. 82 p. (Submitted to Tennessee Valley Authority).
- Demeterio, J.L. 1976. Assessing the Soil Fertility of Guam Agricultural Soils Using the Principles of Soil Testing. Report of Workshop. Regionals Technical Meeting on Soil Science and Land Use sponsored by the South Pacific Commission, Suva, Fiji, July 26-30, 1976. p. 13-14.
- Demeterio, J.L. 1978. Quality of Percolate Below the Root Zone of Selected Vegetables in Northern Guam. Project Completion Report submitted to O.W.R.T., 32 p.
- Demeterio, J.L., M.T. Baccay, Y.L. Jarque, and R.J. Concepcion. 1978. NO<sub>3</sub>-N Movement Below the Root Zone of Selected Vegetables in Northern Guam. Agronomy Abstracts. American Society of Agronomy. P. 23.
- Valverde, C., J.L. Demeterio, and E.C. Doll. 1972. Phosphorus Forms and Equilibria in Selected Peruvian Sils. Agronomy Abstracts. American Society of Agronomy. P. 192.
- Gallagher, P.J., R. Ellis, Jr., J.L. Demeterio, and L.S. Murphy. 1972. Effectiveness of ZnO and ZnSO<sub>4</sub> Coated on Phosphorus Materials. Agronomy Abstracts. American Society of Agronomy. P. 145.
- Demeterio, J.L., R.J. Concepcion, and M.T. Baccay. 1980. Evaluating Nitrogen Sources for Vegetables Grown in Guam. Agronomy Abstracts. American Society of Agronomy. P. 41.

Demeterio, J.L. 1983. The Soils of Guam. Proceedings of the 5th International Forum on Soil Taxonomy and Agro-Technology Transfer in Papua, New Guinea. April 24th to May 5th, 1983. 10 p.

Off-Island Professional Meetings Attended

1. Regional and Technical Meeting on Soil Science and Land Uses. July 26-30, 1976. Suva, Fiji.
2. Fertilizer INPUTS - Annual Review Meeting. June 6-18, 1976. East-West Center, Honolulu, Hawaii
3. A.A. and Gas Chromatography Workshop. March 13-21, 1977. Persian Elmer, Connecticut.
4. Fertilizer INPUTS - Second Review Meeting. East West Center. May 6-19, 1978. Honolulu, Hawaii.
5. Adaptive Production Systems Workshop. East West Center. August 20-24, 1979., Honolulu, Hawaii.
6. Fertilizer Flows Preparatory Conference. East West Center. August 27-31, 1979.
7. Introduction of Agricultural Remote Sensing Workshop given by the Earth Resources Observation Systems Program of the U.S. Geological Survey. East West Center. Honolulu, Hawaii. Aug. 25-26, 1979.
8. 69th Annual Meetings. American Society of Agronomy. Los Angeles, California. Nov. 13-18, 1977.
9. 70th Annual Meetings. American Society of Agronomy. Chicago, Illinois, Dec. 3-8, 1978. Presented a paper in the Division A-5 section- Environmental Quality.
10. 72nd Annual Meetings. American Society of Agronomy. Detroit, Michigan. Nov. 30 - Dec. 5, 1980. Presented a paper in the Division A-6 Section-International Agronomy.
11. Exploratory visit pending final USAID/Ministry of Agriculture, Memorandum of Understanding. Visayas State College of Agriculture Letye. OICD-STE, USDA, Travel Grant, Aug. 4-14, 1982.
12. Research Methodology Assessment and Research Review Meeting. East West Center. May 16-27, 1977. Chiang Mai, Thailand.





AGRICULTURAL EXPERIMENT STATION

RECEIVED

# University of Guam

COLLEGE OF AGRICULTURE AND LIFE SCIENCES

UOG STATION MANGILAO, GUAM 96913

TELEX UOG GUAM 6275

February 18, 1981

Paul Guinn  
License Management Branch  
Division of Fuel Cycle and  
Material Safety  
U.S. Nuclear Regulatory commission  
Washington, D.C. 20555

Dear Sir:

This is in reference to your letter of Feb. 12, Mail Control No. 06155 (enclosed).

The following are answers to questions requested:

5. Name of Supplier - - Perkin Elmer  
Norwalk, Connecticut  
Wipe test kit No. 009-1667
6. We do not conduct our own leak test. Instead we do a wipe test and with all due precaution and data, the container is sent to:  
  
Nuclear Radiation Dev. Corp.  
2937 Alt. Blvd.  
Grand Islands, N.Y.
7. Manufacturers procedure for cleaning detector cells and/or removal and exchange of detector cell foil will be adhered to very closely. We intend to send back everything to the manufacturer--for clean-up or disposal.
8. Foil for disposal will be sent back to supplier.

If there are further questions please let me know.

Yours truly,

J.L. DEMETERIO  
Associate Professor

COPIES SENT TO OFF. OF  
INSPECTION AND ENFORCEMENT

JLD:eme

Enclosure

AN EQUAL OPPORTUNITY EMPLOYER

~~810320955~~