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PLP News

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Indigenous Knowledge—The Lost Art of Learning Through Listening

By Misty Nielsen

Come out of the lab with me—c'mon...just put down the beaker and come outside, I have something to show you. Look- it's the great outdoors —you do remember what the sky looks like don't you? What?!! You didn't remember there WAS an outside world? Well, it's truly a shame most of us are too deeply entrenched in labs to notice what the outside world still has to offer.

“The extinction of corn or wheat would have a lot greater impact on our culture than the extinction of the elephant or panda. It's time we were placing plants as the centerpieces of civilization that make our culture and agriculture possible” says Plotkin, an ethnobotanist from D.C.'s Conservation International. Agricultural knowledge is being lost daily because of the lack of anthropological agricultural studies on small-scale indigenous farmers. In the field of plant pathology, we often forget that what we spend every day in the lab doing is being practiced somewhere. Somebody is growing something using techniques plant pathologists developed. And some peoples are growing food without ever hearing of a plant pathologist. Surprised? Thousands of small-scale native

farmers rarely come into contact with anyone outside of their village or tribe, and few of these are willing to listen to a person who has come to teach them how to do something they have been doing for generations. So why are so many people trying to teach and so few people trying to listen? These are the indigenous peoples who still remember what the sky looks like and are intimately attached to the land. The people who farm each day have traditions, rituals and practices that can only truly be understood by agricultural anthropologists. These practices are an often under studied resource. And in turn, the information the anthropologists garner must be put back into the loop of research — from the field to the lab and back to the field.

Cultural control, biocontrol and chemical control research is being done day in and day out, but where are the leads coming from? You might be surprised to learn of the large number of studies based on indigenous agricultural knowledge. Why? Mostly the vast experience that these peoples have in agriculture. Small-scale indigenous farmers have unique knowledge, defined as indigenous knowledge, that encompasses the prac-

tices as well as the decision making process behind the practices involved with agriculture. The agricultural practices many of these peoples use have been in use for thousands of years and passed generation to generation. The upsides to gathering indigenous knowledge are many and varied. They are often cheaper than conventional methods as well as readily available. The Green Revolution has been quick to point out the general environmental soundness of indigenous practices. These practices tend to be time-tested and honored and passed from generation to generation allowing honing of these skills. And using safe, sustainable methods in agriculture pest control is one of the new focuses of plant pathology. Clearly, safer, cheaper, readily available, practical, and ecologically safer methods of disease control are something to take notice of. Thus it is imperative that plant pathologists make goal to learn more from indigenous knowledge and to share this information. As more knowledge becomes readily available from centers such as Iowa's CIKARD (Center for Indigenous Knowledge and Rural Development), plant pathologists have the responsibility of investigating some of these potential

control methods. A few studies have already been conducted using indigenous knowledge as a base including studies on beetle damage in stored beans, disease resistant cassava germplasm diversity in backyard gardens, the Aztec *chinampas* growing mounds, uses of common forest plants for pest control in Nigeria and sustainable soil systems by the Bedouin of Egypt. The more we incorporate knowledge of other peoples, the less time plant pathologists must spend researching dead-ends and the quicker the goal of effective IPM practices can be reached. The value of indigenous knowledge is a virtually untapped resource that I would greatly encourage anyone in any field to look into... before it disappears.

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Faculty, staff, students, alumni, and colleagues of our department...

Congratulations to **Dr. S. Chandramohan** ... for winning 2nd place in the Citrus Student Paper category at the 1999 Annual Meeting of the Florida State Horticultural Society. The meeting was held November 1-3 at the Indian River Plantation Marriot, in Stuart, Florida. The title of Chandra's oral presentation was "Biological Control of Weedy Grasses in Citrus with a Pathogen Mixture" and authored by S. Chandramohan, R. Charudattan, R. M. Sonoda, and M. Singh. For placing second, Chandra was given a cash award of



\$ 150 by the Florida State Horticultural Society.

Belated congratulations to **Christina Fulford** who was elected National Corresponding Secretary of the American Society of Agronomy, Student Activities Subdivision. Her duties include publishing a newsletter and assisting in the national convention planning. Good Luck!

Charu Wins Award

Dr. Raghavan Charudattan, Professor and Plant Pathologist, University of Florida, Gainesville, Florida, was elected a Fellow of the Weed Science Society of America at its recent annual meeting held in Toronto, Canada on February 6, 2000. He is a recipient of the University of Florida Professorial Excellence Program Award for 1998-99. Dr. Charudattan, "Charu" as he likes to be called, is a member of the Plant Pathology Department as well as the multidisciplinary faculty of the Center for Aquatic and Invasive Plants. The following is a brief summary of Charu and his program.

Charu was born in India and educated at the University of Madras where he received his B.Sc., M.Sc., and Ph.D. degrees. Upon graduation, he went to the University of California at Davis as a postdoctoral Research Plant Pathologist on a NIH-supported grant and worked with Dr. James E. DeVay for two years. He came to IFAS in the fall of 1970 on a postdoctoral position with Drs. Bob Stall and Dan Purcifull. In 1971, he joined Drs. Bill Zettler and Ed Freeman as a postdoc in the newly initiated program on biological control of aquatic weeds. He joined the faculty ranks in 1973 under Dr. Hank Purdy's chairmanship.

From its small and exploratory beginnings, the biological weed control program has grown into a large and well-supported research and graduate teaching program supported over the years by grants from several national and state

agencies such as the U.S. Army Corps of Engineers, U.S. Department of the Interior, different branches or programs of the U.S. Department of Agriculture (NRI, IR-4, CBAG/T-STAR, IPM, ARS, Forest Service, Office of International Cooperation and Development, and Foreign Agricultural Service), National Science Foundation/U.S.-Brazil Cooperative Research Program, Florida Department of Environmental Protection, Florida Department of Transportation, private industries, and others.

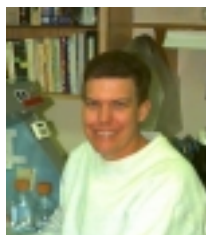
Charu has co-edited and published four books, 15 book chapters and reviews, 50 refereed papers, and more than 150 other publications on biological control of weeds, plant pathogens attacking aquatic and terrestrial weeds, bioherbicides, and biocontrol regulations. In addition to his primary responsibility for research, he teaches a combined undergraduate and graduate course on microbiological control of plant diseases and weeds. In 1990, he co-founded an international journal, *Biological Control: Theory and Application in Pest Management*, published by Academic Press, USA. He is the chairman of the Cooperative Regional Research Project S-268 and the vice-chairman of the International Bioherbicide Group. He is a member of several regional, national, and international professional societies and has served on numerous national and international committees, advisory panels, scientific boards, and working groups. He has served as an invited consultant for agencies such as the World Bank, PanAmerican Health Organization, United Nations Food and Agricultural Organization, and others; reviewed research programs and research units; and collaborated in international research projects in Brazil, Canada, Mexico, South Africa, and the former Yugoslavia.

Over the years, nearly 45 graduate and undergraduate students, postdoctoral fellows, visiting scholars, and technicians have worked in his lab. Presently, his team includes Jim DeValerio and Mark

Elliott (Senior Biologists), Gabriela Wyss and S. Chandramohan (postdocs), Camilla Yandoc, Angela Vincent, and Matt Pettersen (graduate students), Alison Walker (undergraduate University Scholar), Dr. Amos Dinooor (visiting professor from Israel), Henry Ross and Matt Pusateri (OPS assistants) and Linda Farr (OPS secretarial technician; a University Scholar in Geology).

Charu enjoys travel, playing tennis, philately, cooking, and listening to the classical music of South India as well as Europe. The Charudattan family has strong ties to UF; his wife, Dharini (Judy), teaches French at the P.K. Younger school and his son, Savitar, is a recent UF graduate in Business Management.

Farewell Note by: Dr. Bob Kemerait Jr.



To the Plant Pathology Department: Good-bye, and thank you!

About this time last year, I wrote an editorial in our newsletter that described the difficulties and sadness as I watched close friends graduate and leave our department. It has only been recently that I have begun to understand that to leave the department is as difficult as it is to stay behind. Although the future holds great expectations for my family, there is a keen sense of loss, as you all have become a part of my family of friends during the past 5 ½ years.

As a student, I have spent weeks, months, and years anxiously awaiting the day when I would finish my dissertation and be free from the burdens associated with the life of a graduate student. Since learning that a job awaited me in Georgia, if I could finish by March 1, I have spent nearly every waking moment focused on meeting that deadline. The deadline loomed large in my many hours at the computer. I ago-

nized over statistical significance, choice of experimental design, formatting, and the red ink that hemorrhaged from the wounded pages of my dissertation as streams of blood from the onslaught of the pens of my dedicated committee. To the very end, I was not sure that this phase of student life could ever conclude, at least happily.

But today, it ended. As the editor at Grinter Hall accepted my dissertation (5th draft), she smiled politely and handed me a "PHinally Done" decal. I was filled immediately with a sense of relief. However, I was also amazed because, in an instant, the frustration of the past 5 months vanished and the urgency of the previous night was replaced by a vague confusion as to the next step to take. I finished with only two days separating the start of a new job and only a day until Pam, Perrine, and I left for Tifton.

In the effort to finish, to find a place to live, and to prepare for the move, I have had no time to tell those of you in the department who have played such an important part in my life for these past years of the value I place in your friendship. When we pass in the hall, I have wanted to thank you for your kindness and generosity during important events in my life and to let you know that I will not forget you, nor will I let you forget me.

Unfortunately, my time here is short and I won't be able to tell most of you how much your friendship has meant to me. I regret that I will no longer be able to talk with you each day, to share coffee breaks on Friday mornings, to attend seminars, classes, and graduate student meetings, and to learn of your lives in places far from my Florida. I will miss listening to stories about your research and your children, picnics at Ginnie Springs, and Christmas parties at Lake Wauberg. I'll miss lunch at La Fiesta and Joe's, mushroom sales each year, leisurely conversations that keep me long after 5:00, and tubing on the Ichetucknee. I'll miss talks on the philosophy of science, debates on the domi-

nance of Fords over Chevys in NAS-CAR, and Saturday afternoons in October at Florida Field. But mostly, I'll miss you.

I believe that one of the most important things that one person can do in this life is to make a positive difference in the life of another. I have appreciated the friendships, mentoring, and knowledge that has been given to me by all of you in this department. Each one of you has helped to make my time here the wonderful experience that it has been. Thank you, and should you pass through Tifton, please visit us. We hope to see you all again at the departmental picnic in April.

Bob Kemerait

Mushroom Sale 2000

Hey, Mushroom Fans!

Are you hungry for a great deal on tasty white button mushrooms? If so, then come support the Plant Pathology Grad Student Fundraiser! We will be selling mushrooms March 6th- 20th. The price is a bargain at \$1.85/lb prepaid (before 3/20) and \$2.00/lb the day of the sale. See any grad student for an order form or order via email (acv@gnv.ifas.ufl.edu). Pick up your mushrooms 9am-4pm, Friday March 31,



Softball Sum- Up

in the lobby of Fifield Hall.

Congratulations to the departmental (plus a few others) softball team on their two victories (and one close-game defeat)! The last game is March 16th at 10pm and the team could still use cheerleaders as well as any players that still would like to join. Contact Mike Mahovic if you would like more information.

Departmental Spring Social

The annual spring social will be held at Ginnie Springs on April 29th. Be on the lookout for more information on this fun event!

Coffee Break Schedule and Birthdays for February

Friday Coffee Break

- 3-3 Charudattan
- 3-10 Gabriel
- 3-17 Jones
- 3-24 Kimbrough, Kucharek and Song
- 3-31 Pring and Chourey
- 4-7 Niblett
- 4-14 Disease Clinic and Zettler
- 4-21 Bartz and Berger
- 4-28 Hiebert



Birthdays!!

- 3-4 Dr. Bartz
- 3-7 Gail Harris
- 3-13 Vicente Febres
- 3-17 Eldon Philman
- 3-18 Jorge Vasquez
- 3-26 Mike Mahovic
- 4-1 Dr. Gabriel and Francisco Ochoa
- 4-7 Dr. Charudattan
- 4-26 Jennifer Klein



Seminar Schedule for Candidates for Molecular Genetics of Plant Pathology Position

Wednesday, March 3rd, 3:00 pm. Room 2318. **Dr. Andre Drenth**. "The Role of Fungal Genetics in Plant Pathology"

Tuesday, March 14th, 11:00 am. Rooms 1306-1308. **Dr. Xianming Chen**. "Stripe Rust: Pathogen populations and Resistance of Wheat and Barley"

Wednesday, March 15th, 11:00 a.m. Rooms 1306-1308. **Dr. Gustavo Astua-Monge**. "Host-Pathogen Interactions : From Bacteria and Viruses to a Future in Fungi"

Monday, March 20th, 11:00 a.m. Rooms 1306-1308. **Dr. Jeffrey Rollins**. "Identification of Signal Transduction Pathways Regulating Pathogenicity Determinants and Development of *Sclerotinia sclerotiorum*."

Leisure and Culture in Gainesville March 2000 and Beyond

For events, including sports, seminars, meetings and activities, check out the University of Florida Events calendar at <http://calendar.ufl.edu>.

Interview with a New Student

Ahmad Al-sayed Omar comes to us from El-senbellawen, Egypt. He is a new Ph.D. student working with Dr. Prim Chourey.

Ahmad received his B.Sc. in 1993, and M.Sc. in 1997 from the Faculty of Agriculture Biochemistry Department at Zagazig University in Egypt. His thesis title was "Biochemical studies on royal jelly as a honey bee product." He also received the outstanding assistant lecturer award. Since then he has received a governmental scholarship to do research in biotechnology and its' use in plant improvement. Besides the good biotechnology program, and professors, Ahmad decided on U.F. because the climate in Florida is most like that of Egypt. His Ph.D. studies will focus on transforming plants such as wheat and corn to improve their tolerance to temperature, salinity and drought.

Ahmad is a newlywed as of December 3, 1999. His wife recently arrived and will be staying with him for the dura-

tion of his studies here. She also has a degree in biochemistry. Ahmad's hobbies include swimming and reading. So far he has only seen Gainesville, but he plans on traveling to other cities such as Miami and Orlando with his new wife.

Interview with a Student

Matt Brecht grew up in Towson, Maryland, and later attended University of North Carolina at Wilmington, where he earned his B.S. in Biology with a minor in French. As a sophomore, Matt took advantage of an opportunity to study abroad for a semester and spend several months at the famed La Sorbonne, studying intensive French and art.

Matt's interest in plant pathology began in his senior year at U.N.C. Wilmington. Matt had a large garden at home and noticed one day that his tomatoes (and his neighbor's tomatoes) had curious spots on them. He did some research in the library to diagnose the problem with his plants and discovered that there was an entire discipline concerned with the diseases of plants: plant pathology. Matt had always been a lover of plants and had now discovered this new biological niche. In reading, he became completely enthralled with the subject and knew that he wanted to pursue a career in this new-found discipline. Matt began looking for school that offered graduate programs in plant pathology, and after graduation from U.N.C.W., visited a friend in Raleigh who knew a plant pathologist at N.C. State. Matt toured the campus and was interviewed and immediately hired to work in the plant disease clinic. Matt endeavored to work as a post-bac and took a few classes (plant breeding and general plant pathology). He worked in the lab of Dr. Frank Louws, concentrating on finding alternatives to methyl bromide, prevention of *Botrytis* on strawberry, and the diagnosis and characterization of strains of *Xanthomonas campestris* pv. *vesicatoria* on tomato. While at N.C. State, Matt also worked in Dr. Pesic Von Esbroeck's lab.

There Matt learned how to micropropagate virus-free sweet potato and strawberry plants. He maintained greenhouse stock of virus-free cultures for distribution of cuttings to growers as virus-free mother plants.

After gaining practical experience during his post-baccalaureate, Matt decided to apply to graduate school. He spoke with Dr. Zettler and visited us last spring. Matt wanted to work on a project involving either biological control or cultural practices. He was put in touch with Dr. Datnoff and is now working on the, "Influence of fertilization with silicon on the development and control of *Magnaporthe grisea* on St. Augustine grass." Matt is essentially continuing Dr. Kenny Seebold's work and performs all of his field work during the summers at the REC in Belle Glade. During the fall and spring, Matt does his lab research in his co-advisor's lab, Dr. Kucharek. Matt is currently working on his Masters, but hopes to expand his project and ultimately earn a Ph.D.

Matt's hobbies include the hunting and gathering of edible mushrooms, working out, fishing, and cooking. He is also a proud and essential member of the Plant Path. Softball team. Matt loves living in Florida; he loves hot weather and sunshine. (He said that he might be able to do without the enormous mosquitoes in Belle Glade, however.)

We wish all of our new students much success! We hope that there time here is a productive and an enriching one!

Cool Web Sites

Hankering for irreverent quizzes? Try www.emode.com. This site lets you quiz yourself on everything from IQ to what breed of dog you would be (if you were a dog) and let's you e-mail your results to friends as well as save them to a vault. Try the Pop Culture 1999 and see if your pop knowledge is Y2K compliant.

Sick of getting a busy signal for the local movie theater? Try <http://movies.yahoo.com>.

Just type in your zip and it gives you local theaters, movies and showtimes. Also has movie reviews and a searchable movie database.

Searching for that certain piece of music nobody seems to carry? Try www.cdnnow.com. They have a HUGE database of music titles (both CD and cassette) at good prices and you can search by song, album and artist. Also, you can hear snippets of songs to make sure that's the song you're looking for.

POETRY by Libert y Hyde Bailey (1858-1954): botanist, horticulturist, plant breeder, poet, environmentalist, visionary, administrator, editor, lobbyist, teacher, traveler and plant explorer.

I PLOW

Quick smell of the earth, I am come once more

To the feel of soil and the sky before
To tang of the ditch and whiff of the bough
With a stamp of my team and grip of my plow

I am blowing again with wind and rain
I am falling with frost and snow
Yearning once more with the fields that have lain
Through the months of the drought and flow,-
You shall hear the clank of my plow and chain
Where my hard-harnessed horses throw
And follow the welts that I rip in twain
As I turn up the lands below.

Jangle and crunch in the far-windy morn
Cut and grind through the singing sod
Stone and high-hummock and thistle and thorn
Root and stubble and rolling clod
Puddles that break into furrows foreshorn
Helm of the handles, plow-point's prod,-
With hale of great harvest my bouts are borne
Ov'r the vasts of the glebes of God.

Mete to the mark are my furrows full-set
Hard with the muscle and marrow and sweat
Straightforth is the way and the fields are rife
High over the heights of the hills of life

We are online!

<http://plantpath.ifas.ufl.edu/>

If you would like to join our staff or contribute an article, contact us!

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