

UNIVERSITY OF HAWAII AT MĀNOA

College of Tropical Agriculture and Human Resources
Department of Tropical Plant and Soil Sciences

April 2, 2009

MEMORANDUM

TO: Cacao growers and Hawaii chocolatiers
FROM: HC Bittenbender Extension Specialist, TPSS
SUBJECT: First Cacao to Chocolate (C2C) Newsletter

Aloha Hawaii Cacao to Chocolate Pioneers,

Since our Oct 23, 2008 meeting at the CTAHR Urban Garden Center in Pearl City much has happened. What you asked, well that's for all of us to share. While I have not sponsored a newsletter for growers before Hawaii's Cacao to Chocolate Industry is unique. First I have not organized the founding committee for a Hawaii Cacao to Chocolate Association. It's not too late but it may be too earlier, I'll see how you respond.

At UHM:

Two young scientists joined our c2c group. Dr. Nat Bletter who is at the Kona Chocolate Festival wrote a chapter in Chocolate in MesoAmerica. He is an avid chocolatier using tropical fruit flavors.

Mr. Dan O'Doherty is completing a M.S. Botany at UHM and is joining my Hawaii State-wide Cacao Variety Trial project. Currently he is working on grafting cacao in the early seedling stage.

Meanwhile Dr. Loren Gautz working with Dr. Mel Jackson's lab at the Hawaii Agricultural Research Center is testing yeasts and bacteria in pure culture isolated from cacao ferments around the state. Loren has applied for a follow on grant for this work with Jackson and Susan Schenck (HARC). Loren is also leading a grant writing team of myself, Dr. Chifumi Nagai (HARC), Dr. Ray Schnell and several other USDA scientists working with MARS. The grant aims to fill the pipeline to Hawaii with varieties evaluation work, new selections, and map of cacao genes.

I have a grant proposal pending for the Hawaii State-wide Cacao Variety Trial project. Now that we are making solid progress on propagation, we can begin to sign up cooperators to grow 40 trees representing a wide range of cacao genetics including promising yield potential and chocolate characters. If you want to be a cooperator send me an email with your location, elevation and whether you have irrigation. The trial will include wet warm, dry warm, cool wet, and cool dry sites.

Mr. Erik Kling received his M.S. in 2008. He studied the establishment of transplanted and direct seeded cacao using mini cages. He found that if you are going to plant seedlings then you can bypass the plastic bag in the nursery using mini cages. Several growers are trying this so we'll have news from the orchard soon. Erik and I wrote a photo bulletin , Making Chocolate from Scratch that I've attached.

Dr. Mike Kawate, pesticide specialist, notes there are several pesticides labeled for cacao:

- 1) Ecozin 3% EC Botanical Insecticide, active ingredient is azadiractin from neem.
- 2) Ecozin Plus 1.2% ME , active ingredient is azadiractin from neem.
- 3) Prev-Am Ultra, active ingredient is sodium tetraborohydrate decahydrate ("borax")
- 4) Carbaryl 4L, SLN HI-970003, active ingredient is carbaryl (Only on nonbearing cacao)

If you have Chinese rose Beetle problems the carbaryl is probably more effective than the Ecozin. Always follow the label.

In this first issue of my C2C newsletter we've heard what's happening at CTAHR, for the next issue please send me your news and problems in growing cacao and especially in fermenting as this is the main harvest period.

cc.