

# KAUAI COUNTY LIVESTOCK NEWS

## Goats, Goats, Goats

*Goat Workshop on Kauai and Aversion Training on Maui*

By Matt Stevenson



Goats are incredibly useful and enjoyable additions to many farm, ranch, or homestead systems. Ranchers use goats for meat, milk, fiber, weed management, manure, and even to pull carts. John

Powley, livestock extension agent on Maui (see pg. 4), points out that goats are the most popular meat in the world, but because they are not fully available to meet this demand they are not the most

CONT'D ON P. 2

### In This Issue...

Goats on Kauai and Maui pg. 1

Marianas Grazing & Livestock Acad. pg. 5

Changing faces at UH-CTAHR pg. 4

Coconut Wireless: Upcoming Events pg. 6

Kauai 4-H pg. 7

Recipe: Guamanian Chicken pg. 2


Photo Quiz pg. 6

*This newsletter is published twice annually by the University of Hawaii at Manoa College of Tropical Agriculture and Human Resources, Cooperative Extension Service, Livestock & Range Program - Kauai County*

## ATTENTION HAWAIIAN HOMES LESSEES: SEEKING PROJECT COOPERATORS

The UH-CTAHR Cooperative Extension Service in Kauai County is seeking Hawaiian Home Lands residents and farm/pastoral lot lessees interested in participating in livestock demonstration projects. The intent of the projects is to provide hands-on



training and transfer useful knowledge to current livestock producers or those who would like to begin livestock production. The focus will be on pigs, grazing livestock, and poultry. Contact Sara Bowen (see pg 4) at 274-3478 or [skbowen@hawaii.edu](mailto:skbowen@hawaii.edu) for more info. 

## ESTIMATING FORAGE PRODUCTION (CONT'D FROM P. 1)

consumed. Owing to a great and growing interest in keeping goats on Kauai, UH-CTAHR partnered with Louisa Wooton of Kauai Kunana Dairy to hold a goat care basics workshop with nearly 50 individuals attending. Louisa has raised small ruminants all her life and for many years on Kauai. She pitched the idea of holding a workshop together some time ago and the stars finally aligned. Running a successful dairy and organic farm keeps her incredibly busy, and she generously donated her time to pass on useful knowledge to 4-Hers and producers.

Also in attendance was Tom Runyan of Tom's Goats in Wailua. Tom has been raising meat goats first in New Mexico and later on Kauai for several years. When he's not working on the farm he donates his time as a volunteer on the 4-H Livestock Committee guiding the sheep and goat projects. Tom generously shared his

knowledge and experience with us too. I've called Tom many times when I'm stumped by questions from callers about goats.

Louisa taught us about monitoring for worms by fecal flotation and treating for worms by the FAMACHA method. This method uses colored photos issued by a veterinarian to determine individuals that need to be treated. By strategically treating (and culling) those individuals with the heaviest worm loads, a rancher can lower their costs and maintain the efficacy of these drugs. Louisa also demonstrated trimming hooves and other animal handling issues. Perhaps most important, Louisa shared what emergency care supplies she keeps on hand, what you can treat on your own, and when to call the veterinarian. We hope to hold a follow-up workshop when she can talk more about and demonstrate kid care.

CONT'D ON P. 3

## GUAMANIAN CHICKEN (CHICKEN KELAGUEN)



Chamorro Plate Lunch

**2 lbs. chicken wings**  
**2 T. Hawaiian salt**  
**1/4 cup lemon or lime juice**  
**1 small grated onion to taste**  
**Dash of paprika**  
**Drop of Wesson oil**


Marinate wings overnight and broil.

From: "50 Years of 4-H Cooking",  
 UH Cooperative Extension  
 Service, Maui County 4-H, 1979.

*Newsletter Editor's Note: This is a very common dish in Guam and the CNMI where raw beef or fish is also prepared this way. Cooked chicken kelaguen is often chopped fine and served in a small, thick tortilla. Almost always accompanied with finadene - a soyu and vinegar sauce, and donne sali - red pepper paste.*



GOT ORIGINAL RECIPES?

The Society for Range Management is reissuing their Cowboy Cookbook and is taking submissions. They are particularly interested in recipes that have a ranch or farm family story that goes with them. Send recipes to me and I'll pass them on. 

CONT'D FROM P. 2

*Goat Aversion Training on Maui*

Also in November, I was fortunate to be invited to observe a goat aversion training at Haleakala Ranch on Maui conducted by Greg Friel and Bobby Brooks. What is “aversion training”? Many ranchers now use multiple species to eat a problematic weed to reduce herbicide use and costs. For example, decades ago while working in Africa, John Powley mixed spent brewer’s grains into tubs with grass his goats normally avoided. The goats relished the grains and ate everything in the tub. Eventually, the goats began eating the grass by itself in the pasture owing to the positive association with brewer’s grains. “Aversion training” is the opposite of this type of conditioning: training animals to avoid certain plants such as crops, grapes, coffee, or others.

Led by Fred Provenza and Juan Villalba of Utah State University, the BEHAVE Network ([www.behave.net](http://www.behave.net)) consists of ranchers, researchers, extension agents, and others using cutting edge research to manage land based on animal behavior. For over 30 years members of the BEHAVE Network have laid the groundwork and come up with unique methods such as aversion training.

For Haleakala Ranch, Greg and Bobby had recently

invested in planting the Tarramba cultivar of the improved forage legume




Day 1: Tasting Tarramba

*Leucaena leucocephala*. This valuable shrub provides high quality protein and energy to cattle, sheep, and goats even through dry periods. Several weeds had grown up among the Tarramba planting making traditional weed management techniques virtually impossible. Greg and Bobby wanted to test training goats to eat the weeds but avoid the Tarramba.



Days 2-5: Goats avoid Tarramba even with limited feed for training period.

Greg and Bobby penned up about 30 goats overnight with no feed. The next morning they were allowed into a dry lot with freshly cut Tarramba branches. Most of these goats had no experience eating koa haole, a similar relative of Tarramba, and to our surprise they were somewhat reluctant to taste the bush even after the fasting period. When individuals ate Tarramba, Greg and Bobby drenched them with a small amount of lithium chloride to cause a mild nausea in the goats. Treated goats were separated for about another hour to form a strong association of the nausea with the Tarramba before being let out to pasture. This process was repeated for about 3 days. Interestingly, even goats that readily ate the Tarramba the first day would hardly even sniff at it the subsequent days. A month later and the goats are grazing among the Tarramba and the aversion seems to be holding strong. Owing to the success of this initial training, they will be training 60 more goats for additional impact on weeds in the Tarramba planting.

Innovative approaches like this by ranchers thinking outside the box is exciting, and I’m happy to talk more with anyone who wants to discuss these types of projects. 

## JOHN POWLEY - THIRTY YEARS OF SERVICE



With gratitude for his many years of service but with deep regret for the loss of his irreplaceable experience, CTAHR announces the retirement of John Powley - Maui County livestock extension agent. John joined CTAHR in 1980 after receiving his Master of Science degree in Animal Science from Oregon State University. Prior to his graduate education, John spent several years working in rural development and livestock extension as a Peace Corps volunteer and U.S. AID employee in Vietnam, Gabon, and Cameroon. Drawing from these unique experiences and from raising goats on Maui for over 25 years, John has helped ranchers in

Hawaii and throughout the greater Pacific Basin with practical, realistic advice. I have gained incredibly from the four years I've been working with him and can do my job better from following his example. More than just in the occupational sense, I've learned extensively about people and life from his vast pool of experiences and outgoing manner. His stories can fill a book (and hopefully will). Thankfully, John will still be available for project work as emeritus faculty, so he won't be completely off the hook. Mahalo nui loa John!



## CTAHR KAUAI COUNTY WELCOMES SARA BOWEN




Photo: Sara Bowen

CTAHR Kauai County also has a changing roster, and we're happy to welcome Sara Bowen as a part-time extension agent for Hawaiian Home Lands ranchers and farmers. Sara will be coordinating the extension and outreach efforts to meet effectively the needs of DHHL lessees. Sara is no stranger to Kauai agriculture having worked for the Soil and Water Conservation Districts and as a project/program manager for the Kauai Agricultural Development Program grants administered by Garden Island Resource Conservation & Development, Inc. Sara moved

here from Bellingham, Washington, where she had worked with a Native American tribe managing water resources programs on tribal lands. Sara brings with her excellent experience managing grants, working well with farmers and ranchers, and a great work ethic and attitude. It will be a pleasure working with Sara in a new role to assist and advise on the livestock aspects of the CTAHR Hawaiian Home Lands programs. Welcome on board Sara! 🌿

## MARIANAS GRAZING & LIVESTOCK MANAGEMENT ACADEMY

By Mark Thorne, Glen Fukumoto, John Powley, and Matt Stevenson

Spearheaded by Dr. Mark Thorne, CTAHR State Range Extension Specialist, the Marianas Grazing & Livestock Management Academy is a collaborative extension and outreach project between CTAHR, University of the Virgin Islands, University of Guam, and Northern Marianas College. Team members consist of extension faculty and researchers working with ranchers from Guam, Saipan, Rota, and Tinian. Here are pictures from workshops held in Sept. and Dec. 



---

## FROM THE COCONUT WIRELESS: UPCOMING EVENTS & ANNOUNCEMENTS

**Goat Keeping Basics Part II - Spring 2011.** The UH-CTAHR Cooperative Extension Service will be holding another goat keeping workshop focusing on kid care at the Kauai Agricultural Research Center. Depending on availability, this workshop may again be held in partnership with Kauai Kunana Dairy. Contact Matt Stevenson at 274-3472 or [stevenson@hawaii.edu](mailto:stevenson@hawaii.edu) if you'd like to be put on the email list for upcoming workshop announcements with full details.

### East & West Kauai Soil & Water Conservation Districts

If you would like a **free** Conservation Plan for your livestock operation or would like to learn more about conservation practices for your operation, please call **245-6513** or come into the SWCD office co-located with NRCS, **4334 Rice Street**.



**Kauai County Farm Bureau Garden Fair - April, KCC.** Information, keiki activities, plants, and products for gardeners. Sponsored by Kauai County Farm Bureau and UH-CTAHR. 🐮

If you would like to submit events or other announcements for the Fall newsletter, please e-mail me at [stevenson@hawaii.edu](mailto:stevenson@hawaii.edu).

---

### PHOTO QUIZ



Last issue's quiz: why is there so much broomsedge on the left? One reader hit it on the head - rotational grazing management on the right side of the fence. On the left, cattle can graze at will and repeatedly graze on preferred forages until broomsedge takes over. Periodic rest from grazing gives key forages time to recover and compete.



This issue's quiz - Both of these double rows of the Tarramba cultivar of *Leucaena leucocephala* were planted at the same time in calcareous soils in the Mariana Islands. The rows on the right grew exceptionally well over 6 months while the rows on the left appeared stunted in comparison. Why is there a difference between these rows? Send your ideas, comments, or sarcastic remarks to Matt at [stevenson@hawaii.edu](mailto:stevenson@hawaii.edu). This will be discussed in the next issue. 🐷

## KAUAI 4-H LIVESTOCK PROGRAM

### County Fair Livestock Show & Sale

4-Hers, family, friends, and others came together to conduct another successful livestock show and sale at the Kauai County Farm Fair in August. Animals were primed

to happen for the education and development of the youth in our community.

### New Pullet Project

This year the 4-H Livestock Committee has introduced a new project for 4-H juniors and seniors for showing and sale at



and preened and even some of the 4-Hers were too. Thousands of members of the public came by the livestock tent and many commented on how impressed they were with how the 4-Hers conducted themselves. For some, this is as close as they get to animal agriculture and where their food originates from. In total, there were 8 steers, 7 hogs, 7 sheep, and 4 goats shown and sold at the fair. Also present were 2 Clover Bud chicken and 2 rabbit exhibitions. Congratulations and Mahalo nui loa to the dozens of individuals who come together to participate and make this all

the Garden Fair. 4-Hers will have the opportunity to raise pullets from chicks to sell as a pen of up to 6 future layers. Many attendees at the Garden Fair are interested in laying hens, and this project will give kids an opportunity to learn about raising chickens. This is a great transition project for Clover Buds becoming juniors or new members who may not be comfortable with larger animal projects.

*For more information on the 4-H program visit [www2.ctahr.hawaii.edu/4h/](http://www2.ctahr.hawaii.edu/4h/) or contact Laura Kawamura at 274-3473 or [ljk@hawaii.edu](mailto:ljk@hawaii.edu).* 🐔

### \*\*\*NOTE\*\*\*

To conserve resources, the Kauai County Livestock News is now a completely digital publication. However, if you do not have Internet access or do not use e-mail and would like to receive a hard copy of this newsletter, please send me your name and mailing address.

Food for thought:  
 “Caught in a sudden shower,  
 Huddling sparrows  
 Vie to get under the grass.”  
 --Yosa Buson (1716-1783)



**Matthew Stevenson  
 Livestock & Range  
 Programs**

**Kauai Extension Office  
 3060 Eiwa St., Rm. 210  
 Lihue, HI 96766**

**Tel: 808-274-3472**

**Fax: 808-274-3474**

**[stevenson@hawaii.edu](mailto:stevenson@hawaii.edu)**

UH is an EO/AA Institution