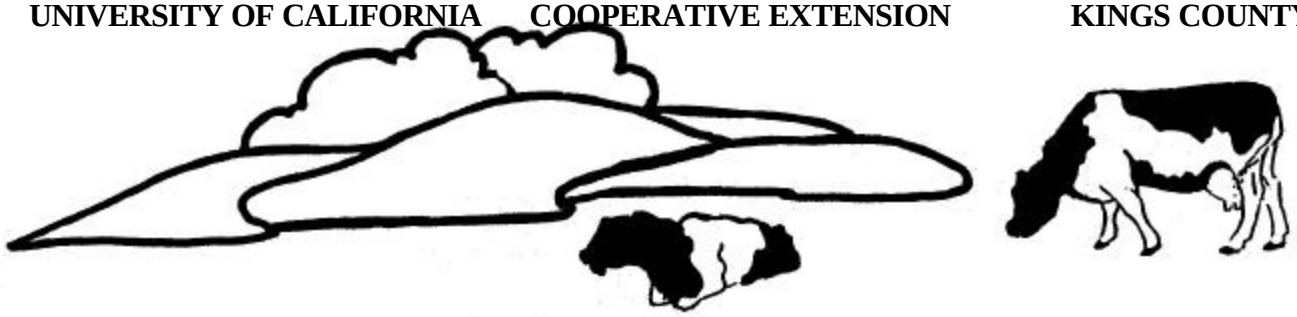
# *DAIRY NOTES*

**UNIVERSITY OF CALIFORNIA COOPERATIVE EXTENSION KINGS COUNTY**



**September 2001**

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## Environmental Stewardship Shortcourse

Another series of the popular Environmental Stewardship Short Course for dairy producers will be held in Hanford on October 15, 22 and 29th from 2 to 4 PM at the Kings County Ag Center Multipurpose room located at 680 Campus Drive. **This may be the last time the class will be offered for FREE, so now is the time to get signed up to participate**. In addition to the classes in Hanford, classes will also be held in Modesto, Stockton, Rohnert Park and Orland. The attached schedule gives the complete listing of class times and locations.

## Corn Disease Plagues Area Corn Fields

The 2001 season is shaping up to be a very severe corn stunt disease year for Kings County. It is estimated that 23,000 acres or about half of the corn acreage in the county is affected to some extent. All varieties of field and sweet corn are susceptible. As the harvest season continues, fields have increasingly pronounced symptoms and yield loss. Severity of the symptoms depends on when the plants were infected. Early symptoms include yellow or chlorotic looking leaves. This is usually followed by distinct reddening of the leaves and silks. Plants produce small ears that start to dry or dent before the kernels are completely filled with starch. Fields dry prematurely prior to harvest. In late planted fields that are infected early in their development, short, bushy plants with multiple very small ears that never fully develop are common. Early planted fields may have little to no yield loss, but later planted fields can suffer substantial yield losses.

Corn stunt disease is caused by a microorganism called *Spiroplasma kunkelii*. These bacteria-like organisms are carried from diseased corn to healthy corn by corn leaf hoppers. It takes about three weeks for symptoms to appear. There are various types of leaf hoppers, small insects that live and feed on many crops throughout the growing season. The corn leaf hopper feeds solely on corn, and corn is the only host for the spiroplasma.

Corn stunt is not a new disease. It was first identified in the San Joaquin Valley in the 1940's. Since then, outbreaks have occurred only erratically over the years. Most growers in our area had never seen the disease until 1997, the first year in recent memory that was severe. At that time it was believed that the disease only occurred when there were outbreaks in northern Mexico where corn is grown year round. Since the leaf hoppers had to have fed on infected corn to cause disease here, it was presumed that they somehow were able to make their way from infected fields in Mexico to the San Joaquin Valley on wind currents. It was also presumed that the disease would not be seen very

often, since occurrence of all the conditions allowing it to get here in the first place would be unusual. Unfortunately that has not been the case. Corn stunt has been seen in some fields to a limited extent every year since 1997. Strangely, it seems to hit first and hardest in Kings County, especially in the western part. The current outbreak is worse than anything ever seen. A group of UC specialists are working to learn more about the disease. Some unanswered questions include:

- Why are we seeing the corn stunt disease so frequently?
- Why does the disease seem to be focused mainly in Kings County?
- Are the corn leaf hoppers that carry the spiroplasma over wintering somewhere in the valley?
- Is there another host in addition to corn?
- What should growers do to avoid the disease next season?

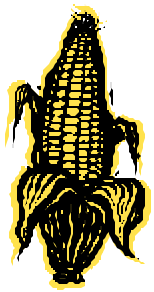
I am working with Carol Frate, my counter part in Tulare County and with Dr. Mike Davis, Plant Pathologist from UC Davis and Dr. Charlie Summers, Entomologist from UC's Kearney Ag Center in Parlier to come up with answers. We are surveying fields, interviewing harvest crews, growers and dairymen, and making plans for greenhouse studies this fall and winter. I recently drove the UC specialists and Ag Commissioner representatives around affected areas so that they could see firsthand the severity of the disease.

Growers, dairymen and custom harvesting businesses are all affected. Early in the year, many growers made the decision to plant corn for silage to market to dairy producers. Other crops seemed more risky because of price uncertainties, so growing corn for silage seemed a fairly safe bet. Silage made from corn that has corn stunt disease poses no risk for the animals, but its feed value can be greatly reduced because there is less grain. So in addition to yield loss, growers are receiving a discounted price for their crop. Since there is less "good" corn remaining in the area, dairy producers may have to pay more to haul it in from unaffected areas or find other feed alternatives. Growers who thought that corn would be their one sure bet are losing money on the crop. Custom harvesting businesses are paid for the number of tons that are harvested, so their income is also directly affected by the disease.

There are no chemical controls for corn stunt. Controlling leaf hoppers seems like an obvious strategy, but they may not be carrying the corn stunt disease in a "normal" year. If they are carrying the disease, then by the time the leaf hoppers are seen, the corn may already be infected. There are also logistical problems associated with trying to penetrate a dense corn canopy with a chemical spray. Leaf hoppers like to stay on the underside of leaves, so it would be difficult to get an effective kill.

If you have late season corn, watch it closely for symptoms. Consider cutting off irrigation and harvesting early if corn stunt develops. If you have silage made from a field that was affected, sample it for nutrient analysis. It may be better to use for heifers or dry cows instead of the milk cows depending on how bad the field was.

Until more is known about this disease, or until we have resistant corn hybrids, the best defense for next season is to plant early, before June 1st. Planting corn early raises other questions concerning your winter forage crop that I will address in the October newsletter. That issue of Dairy Notes will also contain results of last year's winter forage trial. During the next few months we will keep you updated with what we learn about



corn stunt disease and try to help you make planting decisions for next year.

***Carol Collar – Farm Advisor***
***Dairy, Livestock & Forages***
***UC Cooperative Extension – Kings County***

| October 2001 | Times | Contact | **LOCATION OF CLASS (*DAIRY PRODUCERS ONLY*)** |
|---|---|---|---|
| 15 (class #1) | 2:00-4:00 pm | Carol Collar | UCCE Multipurpose Room, 680 N. Campus Dr. - Hanford |
| 16 (class #1) | 10:00 am-Noon | Jonathan Merriam | Stanislaus Ag Center, Service & Crows Landing Rds, Modesto |
| 16 (class #1) | 2:00-4:00 pm | Marit Arana | UCCE, 420 S. Wilson Way, Stockton |
| 17 (class #1) | 10:00 am-Noon | Stephanie Larson | 4-H Building Rohnert Park |
| 18 (class #1) | 10:00 am-Noon | Barb Reed | UCCE Office, 821 East South Street, Orland |
| 22 (class #2) | 2:00-4:00 pm | Carol Collar | UCCE Multipurpose Room, 680 N. Campus Dr. - Hanford |
| 23(class #2) | 10:00 am-Noon | Jonathan Merriam | Stanislaus Ag Center, Service & Crows Landing Rds, Modesto |
| 23 (class #2) | 2:00-4:00 pm | Marit Arana | UCCE, 420 S. Wilson Way, Stockton |
| 24 (class #2) | 10:00 am-Noon | Stephanie Larson | 4-H Building Rohnert Park |
| 29 (class #3) | 2:00-4:00 pm | Carol Collar | UCCE Multipurpose Room, 680 N. Campus Dr. - Hanford |
| 30 (class #3) | 10:00 am-Noon | Jonathan Merriam | Stanislaus Ag Center, Service & Crows Landing Rds, Modesto |
| 30 (class #3) | 2:00-4:00 pm | Marit Arana | UCCE, 420 S. Wilson Way, Stockton |
| 31 (class #3) | 10:00 am-Noon | Stephanie Larson | 4-H Building Rohnert Park |

| November 2001 | Times | **CONTACT** | **LOCATION OF CLASS (*DAIRY PRODUCERS ONLY*)** |
|---|---|---|---|
| 1 (class #2) | 10:00 am-Noon | Barb Reed | UCCE Office, 821 East South Street, Orland |
| 7 (class #1) | 10:00 am-Noon | Abraham Wubishet | Centro Basco, 13432 Central Ave, Chino |
| 8 (class #3) | 10:00 am-Noon | Barb Reed | UCCE Office, 821 East South Street, Orland |
| 14 (class #2) | 10:00 am-Noon | Abraham Wubishet | Centro Basco, 13432 Central Ave, Chino |
| 28 (class #3) | 10:00 am-Noon | Abraham Wubishet | Centro Basco, 13432 Central Ave, Chino |

All ESSC1 producer meetings scheduled are for **dairy producers <u>only</u>** unless stated otherwise and are no charge to producers.
Questions regarding lost or incorrect ESSC1, certificates for dairy producers should be directed, <u>in writing</u> (*mail*) to Deanne Meyer only.

Pre-evaluation class to prepare dairy producers for the CDQAP facility evaluation by 3rd party evaluator. (for those who have completed all three ESSC classes

| [1] Pre-evaluation | | | **CLASS LOCATION** |
|---|---|---|---|
| October 2001 | Times | **CONTACT** | **LOCATION OF CLASS** |
| 31 (pre-evaluation) | 1:00–4:00 pm | Stephanie Larson | 4-H Building Rohnert Park |
| November 2001 | Times | Contact | **LOCATION OF CLASS** |
| 8 (pre-evaluation) | 1:00–4:00 pm | Barb Reed | UCCE Office, 821 E. South St., Orland |
| 28 (pre-evaluation) | 1:00–4:00 pm | Abraham Wubishet | Centro Basco, 13432 Central Ave, Chino |

***Pre-evaluation* –** Is **voluntary** and is a preparatory training for **dairy producers** who wish to have their dairy facility "certified," by the CDQAP "*3rd Party Evaluator.*" ***No Charge for attending this class***.

[1] **Pre-registration** with the local dairy advisor is necessary for the Pre-evaluation classes.

UC Cooperative Extension Dairy Advisors listed below:

| Contact Name | Title | Counties Served | Telephone |
|---|---|---|---|
| *Marit Arana* | Dairy Advisor | Sacramento/San Joaquin, etc. | (209) 468-9492 |
| **Carol Collar** | Dairy Advisor | Kings | (559) 582-3211 ext 2730 |
| ***Stephanie Larson*** | Dairy Advisor | Marin/Sonoma | (707) 527-2621 |
| *Jonathan Merriam* | Dairy Advisor | Stanislaus/Merced | (209) 525-6800 |
| ***Abraham Wubishet*** | Dairy Advisor | San Bernardino/Riverside | (909) 387-2262 |
| ***Barb Reed*** | Dairy Advisor | Glenn/Butte/Colusa | (530) 865-1107 |
| ***Abraham Wubishet*** | Dairy Advisor | San Bernardino/Riverside | (909) 387-3318 |
| **Gary Veserat** | Environmental Stewardship Educator<br>Email: *gmveserat@ucdavis.edu* | | (916) 798-7825 (mobile) (530) 668-4884 (voice/fax) |