

## Contra Costa &amp; Alameda Counties

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**Office Hours:****Mondays 1:30-4:30****FALL 2005**

- **LOCAL MEETINGS**
- **COVER CROPS**
- **HERBICIDE REGISTRATIONS & PERFORMANCE**
- **OVERSEEDING OLDER ALFALFA STANDS**
- **TOMATO TRIAL RESULTS**
- **NEW UC VARIETIES:** Cherry rootstocks & Pistachio varieties
- **ANNOUNCEMENTS:** EQIP \$, Farm-School, Apprenticeship
- **RESOURCES:** Publications & Websites
- **CALENDAR:** Classes/Meetings/Events

**CONSERVATION TILLAGE  
 DEMONSTRATION DAY**

Tuesday, October 13, 2005  
 9 am – 3 pm

RDC (DelCarlo Farms)  
 Roberts Island  
 6717 Stark Rd, Stockton, CA 95206

Conservation tillage practices can save money and help to protect water and air quality. Equipment from around the state will be on hand to demonstrate a variety of reduced tillage implements, one pass bed preparation, no-till planting into tomato beds and harvested corn residue. The equipment will include: Eliminator, Para Till, Hann Disc, Mulch tiller ripper, No-till planter, Corn Harvester/stalk shredder, Buffalo cultivator, Strip till planter, Strip till ripper, Sundance cultivator...

**Why Conservation Tillage***Jeff Mitchell, UC Cooperative Extension***Weed Control Issues***Anil Shrestha, UC Cooperative Extension***Air Quality Update***Rick McVay, Reg Air Quality Control Board***Grower Perspective Panel**

Sponsors: UCCE, USDA/NRCS, SJ RCD, SJ FB

**RSVP** to reserve your free lunch 209-472-7127 ext 3
**Contra Costa County  
 PEST MANAGEMENT  
 CONTINUING EDUCATION WORKSHOP**

November 17, 2005  
 6-9 pm

Delta Farm Center  
 Delta Ave & 2nd St., Knightsen

**Surface Water Waiver Update***John Meek, SJ&D Water Quality Coalition***New Laws Affecting Pesticide Use***Rick Strider, DPR***Forming a Pest Control District***Louise Ferguson, UC Davis***Local Cherry Buckskin Update***Janet Caprile, UC Cooperative Extension***AgComplyIT – A regulatory tool for growers***Ed Meyer, CCC Ag Commissioner***Local Pest Management Research***Janet Caprile, UC Cooperative Extension*

Sponsored by the CCC Agriculture Dept.  
 3 hours of CE credit

*All growers are welcome to attend*

## COVER CROPS

Cover crops have been used for more than 80 years in both perennial and annual cropping systems. Recently there has been a renewed interest in using cover crops because of their potential to help us meet the new regulatory requirements for improved water quality. As October is the optimum time to plant cover crops, it seemed timely to review some of the details of cover crop selection and management.

The benefits of using cover crops are many and can include:

- Reduced runoff
- Reduced erosion
- Reduced nutrient leaching
- Improved water infiltration
- Improved soil nutrition
- Improved soil structure
- Reduced compaction
- Potential insect and disease control
- Improved winter/spring field access

There are also some potential drawbacks to cover crops that can usually be minimized with proper plant selection and management. These include:

- *Frost risk in perennial crops:* Cover cropped ground is colder than bare ground. Keep the cover mowed close during spring to minimize this temperature difference.
- *Residue management in nut crops:* Residue at harvest can be a problem for crops which are harvested off the ground. Choose a low growing, early maturing, winter annual cover crop to minimize residues at harvest.
- *Pests:* Some cover crops can harbor rodents and insects which can damage crops. Keep vegetation away from trunks to discourage rodents. Select covers which do not tend harbor potential pests for your crop.
- *Competition:* Covers can compete with crops if additional water and nutrients are not supplied to support both. Keep a 3 foot area around trees and vines free of vegetation.
- *Spring planting delay:* In annual fields the cover can prevent early planting if it needs to be incorporated. Great strides have been made in

conservation tillage practices which allow fall bedding and direct planting into the cover crop residue. Attend the Conservation Tillage Demonstration on October 13<sup>th</sup> on Roberts Island (see calendar section) to see practices and equipment at work.

**Management Systems:** Cover crops can be incorporated into the soil, mowed, or harvested for forage. The maximum soil and nutrient benefit is achieved when the cover crop is turned into the soil at flowering after it has achieved maximum growth. However, significant gains can still be achieved with mechanical mowing or chemical mowing before the cover is mature, particularly with respect to water quality (ie. runoff reduction, erosion control, water infiltration).

In *annual field and vegetable crop* rotations winter annual cover crops are typically employed. They are seeded in fall, grow with the winter rains, and have traditionally been plowed down and incorporated before setting seed (so they don't later become weeds). In this scenario, it is necessary to wait a few weeks after incorporation before bedding up and planting as the decomposing cover may tie up nutrients and make them unavailable to your crop. This planting delay is the primary impediment to using cover crops on our early fields and heavy soils. With new conservation tillage methods, the cover can be planted onto the fall beds and is either mechanically or chemically mowed to minimize residue which would interfere with early planting. The crop can be planted directly into the cover residue.

In *orchards and vineyards* either perennial or annual cover crops can be used.

Perennial covers are useful for reducing dust, improving season long water infiltration, and improving access after rain or irrigation. They should be low growing or tolerant of mowing. Most will use 10-15 inches of water per season as well as additional nutrients, so plan accordingly.

Annual covers are useful where a clean orchard floor is needed at harvest OR to reduce water use. There

are a number of self-seeding annuals that require little or no tilling and can reduce the cost of seed inputs. If spring frosts are a concern, select a variety that can be closely mowed.

**The Plants:** Any plant that will make good growth in the allotted time may be used as a cover crop – including your naturally occurring weeds. However, some plant materials are better than others if you have a specific objective in mind.

*Legumes* have the ability to fix atmospheric nitrogen and make it available to subsequent crops. They are the best choice if soil fertility is your primary concern.

*Grasses and grains* have extensive fibrous root systems and sturdy stems which provide a longer residual material in the soil. They are a good choice if your primary goal is to improve soil structure, increase water infiltration, reduce compaction, or reduce nutrient leaching. Legume-grass mixes combine the benefits of both groups.

*Mixtures* of various grasses or various legumes can also make a cover crop that is adaptable to a variety of conditions.

The table on page 4 outlines some specific cover crop choices.

More detailed information can be found in the UC SAREP Cover Crop database at <http://www.sarep.ucdavis.edu/ccrop/>.

The following UC publications/videos are also available from ANR Communications Services at 1-800-994-8849 or <http://anrcatolg.ucdavis.edu> :

*Cover Crops for California*, Publication 21471, 24 pages, \$ 3.50

*Cover Cropping in Vineyards*, Publication 3338, 168 pages, \$ 20.00

*Creative Cover Cropping in Annual Farming Systems*, Video V93- V, 24 min, \$ 15.00

*Creative Cover Cropping in Perennial Farming Systems*, Video V93- W, 24 min, \$ 15.00

## HERBICIDE PERFORMANCE AND WATER QUALITY

By Larry Mitich

Clay, organic matter, and many minerals that occur in spray water can reduce herbicide effectiveness. For example, clay inactivates Gramoxone Extra and Roundup, organic matter inactivates many herbicides, and many salts inactivate 2,4-D amine, MCPA amine (not esters), Poast, Roundup, and Banvel.

An analysis of water used for spraying provides a guide for determining possible effects of salts on herbicide efficacy. Antagonism of these herbicides is related to the salt concentration. At low salt levels, loss in weed control may not be noticeable unless weed control is already compromised due to drought or weed tolerance to the herbicide.

High salt levels reduce herbicide effectiveness in nearly all situations. Water with more than 150 ppm of calcium or 300 ppm of sodium or magnesium will significantly inhibit herbicide phytotoxicity. Iron is also antagonistic to many herbicides but it is not usually abundant in California water. The antagonism effects are additive if water contains a combination of sodium, calcium, and magnesium.

Sulfate ions in the solution will reduce calcium and magnesium antagonism but to completely overcome antagonism, the sulfate concentration must be 3 times the calcium concentration. So, for practical purposes, naturally occurring sulfate in water is of little consequence. Adding granular or liquid ammonium sulfate or 28% liquid nitrogen fertilizer to the spray solution helps to overcome the salt antagonism. Many adjuvants are marketed to modify the pH of spray water but low pH does not appear essential to the action of most herbicides.

See the tables on pages 5 & 6 for information on:

- The susceptibility of weeds to herbicides
- Current registration status of herbicides for trees and vines

## CHARACTERISTICS OF SELECTED COVER CROPS

|   | Seedling<br>Vigor | Growth<br>habit         | Height<br>(inches) | In Flower | Mature   | Seeding<br>rate<br>(lbs./A) | Approx.<br>seed<br>cost<br>(\$/acre) | Note<br>s |
|---|-------------------|-------------------------|--------------------|-----------|--|-----------------------------|--------------------------------------|-----------|
| <b>WINTER ANNUALS for incorporation</b>                     |                   |                         |                    |           |  |                             |                                      |           |
| <b>Legumes</b>  |                   |                         |                    |           |  |                             |                                      |           |
| field pea   | MH                | viny                    | 18-30              | Mar-May   | May-Jun  | 70-100                      | 28-48                                |           |
| berseem clover  | M                 | erect                   | 18-30              | May-Jun   | Jun-Jul  | 15-20                       | 25-33                                | 2, 4      |
| purple vetch  | H                 | viny                    | 18-24              | Apr-May   | May-Jun  | 40-60                       | 30-45                                | 1         |
| fava (bell) bean  | H                 | erect                   | 36-84              | Mar-May   | May-Jun  | 100-150                     | 32-49                                |           |
| common vetch  | M                 | viny                    | 18-24              | Apr-May   | May-Jun  | 40-80                       | 26-52                                | 1         |
| 'Cahaba' white vetch  | M                 | viny                    | 18-24              | Apr-May   | May-Jun  | 50-80                       | 47-75                                | 1         |
| hairy vetch   | H                 | viny                    | 18-24              | Apr-May   | May-Jun  | 30-50                       | 21-35                                | 1         |
| Lana wooly pod vetch  | H                 | viny                    | 18-24              | Mar-May   | Apr-Jun  | 40-60                       | 36-54                                | 1,3       |
| <b>Grasses</b>  |                   |                         |                    |           |  |                             |                                      |           |
| oat   | H                 | erect                   | 24-60              | Apr-May   | May-Jun  | 100-120                     | 23-28                                |           |
| barley  | H                 | erect                   | 24-36              | Apr-May   | May-Jun  | 80-100                      | 14-18                                |           |
| annual ryegrass   | H                 | erect                   | 36-48              | Apr-May   | Jun-Aug  | 20-35                       | 10-18                                |           |
| cereal rye  | H                 | erect                   | 36-72              | Feb-Apr   | Apr-May  | 60-120                      | 19-38                                |           |
| wheat   | H                 | erect                   | 24-40              | Apr-May   | May-Jun  | 100-120                     | 18-22                                |           |
| triticale   | H                 | erect                   | 24-60              | Apr-May   | May-Jun  | 100-120                     | 28-34                                |           |
| <b>Forbs</b>  |                   |                         |                    |           |  |                             |                                      |           |
| brassicas & mustards  | H                 | erect                   | 24-60              | Mar-May   | Apr-Jun  | 5-12                        | 5-24                                 |           |
| tansy phacelia  | H                 | semi-erect              | 12-36              | Mar-May   | May-Jun  | 10-15                       | 20-30                                |           |
| <b>WINTER ANNUALS for No-Till (they re-seed themselves)</b> |                   |                         |                    |           |  |                             |                                      |           |
| <b>Legumes</b>  |                   |                         |                    |           |  |                             |                                      |           |
|   |                   | prostrate-              |                    |           |  |                             |                                      |           |
| burclover   | M                 | erect                   | 6-15               | Feb-Apr   | Apr-May  | 15-20                       | 27-36                                | 1,2,4     |
| rose clover   | M                 | erect                   | 8-15               | Mar-Apr   | May-Jun  | 15-20                       | 33-44                                | 1,2,4     |
| crimson clover  | M                 | erect                   | 12-20              | Apr-May   | May-Jun  | 15-25                       | 26-43                                | 1,2,4     |
|   |                   | prostrate-              |                    |           |  |                             |                                      |           |
| subterranean clover   | M                 | semierect               | 6-15               | Mar-May   | Apr-Jun  | 20-25                       | 36-45                                | 2,4       |
| <b>Grasses</b>  |                   |                         |                    |           |  |                             |                                      |           |
| 'Blando' brome  | H                 | erect                   | 12-30              | Mar-Apr   | Apr-May  | 10-15                       | 28-41                                |           |
| Zorro' fescue   | H                 | erect                   | 12-24              | Mar-Apr   | Apr  | 8-12                        | 56-84                                |           |
| <b>PERENNIALS for No-Till</b>                               |                   |                         |                    |           |  |                             |                                      |           |
| <b>Legumes</b>  |                   |                         |                    |           |  |                             |                                      |           |
| birdsfoot trefoil   | VL                | semi-erect              | 12-24              | Jun-Sep   | Jul-Oct  | 5-12                        | 18-42                                |           |
| strawberry clover   | L                 | prostrate               | 8-12               | Jun-Jul   | Jul-Aug  | 10-15                       | 38-56                                | 2, 4      |
| white clover  | L                 | prostrate               | 8-12               | May-Jul   | Jul-Aug  | 5-12                        | 44-33                                | 2,3,4     |
| <b>Grasses</b>  |                   |                         |                    |           |  |                             |                                      |           |
| Ca. brome   | M                 | erect                   | 20-47              | Apr-May   | May-Jun  | 15-20                       | 83-140                               | 4         |
|   |                   | semierect-              |                    |           |  |                             |                                      |           |
| orchardgrass  | L                 | erect                   | 24-48              | Mar-Apr   | Apr-May  | 20-25                       | 52-65                                | 4         |
| tall fescue   | H                 | erect                   | 24-48              | Mar-Apr   | Apr-May  | 20-30                       | 28-42                                | 4         |
| sheep/hard fescue   | L                 | tufted                  | 3-10               | Mar-Apr   | Apr-May  | 15-20                       | 49-75                                | 4         |
| red fescue  | VL                | tufted-erect            | 16-40              | Mar-Apr   | Apr-May  | 20-25                       | 30-400                               | 4         |
|   |                   | semierect-              |                    |           |  |                             |                                      |           |
| perennial ryegrass  | H                 | erect                   | 12-30              | May-Sep   | Jun-Oct  | 25-35                       | 33-46                                | 4         |
| <b>NOTES:</b>   | 1                 | may harbor lygus bugs   |                    | 3         | tolerates infrequent mowing<br>can be mowed frequently and/or<br>close |                             |                                      |           |
|   | 2                 | harbors cherry buckskin |                    | 4         |  |                             |                                      |           |

### WEED SUSCEPTIBILITY CHART

|                        | Pre emergence       |                            |                           |                            |                      |                    |                       |                           |                         |                       |                      |                          |                     |                      |                          | Post emergence        |                               |                         |                       |                         |                                  |      |                         |                       |       | Both                   |                                   |                          |  |
|------------------------|---------------------|----------------------------|---------------------------|----------------------------|----------------------|--------------------|-----------------------|---------------------------|-------------------------|-----------------------|----------------------|--------------------------|---------------------|----------------------|--------------------------|-----------------------|-------------------------------|-------------------------|-----------------------|-------------------------|----------------------------------|------|-------------------------|-----------------------|-------|------------------------|-----------------------------------|--------------------------|--|
|                        | ALACHLOR<br>(Lasso) | DICHLORIBENIL<br>(Casoron) | DIURON<br>(Karmex, Direx) | EPTC<br>(Eptam, Eradicane) | SOXABEN<br>(Gallery) | LINURON<br>(Lorox) | METOLACHLOR<br>(Dual) | NAPROPAMIDE<br>(Devincel) | NORFLURAZON<br>(Salcam) | ORYZALIN<br>(Surflan) | OXYFLORFEN<br>(Goal) | PENDIMETHALIN<br>(Prowl) | PRONAMIDE<br>(Kerb) | SMAZINE<br>(Princep) | TRIFLURALIN<br>(Treflan) | BROMOXNYL<br>(Buctil) | DICAMBA<br>(Banvel, Vanquish) | FLUAZIFOP<br>(Fusilade) | GLUFOSINATE<br>(Relo) | GLYPHOSATE<br>(Roundup) | HALOSULFURON<br>(Parnit, Sandea) | MSMA | PARAQUAT<br>(Gramoxone) | SETHOXYDIM<br>(Poast) | 2,4-D | METRIBUZIN<br>(Sencor) | RIMSULFURON<br>(Matrix, Shadeout) | FLUMIOXAZIN<br>(Chateau) |  |
| <b>BROADLEAF</b>       |                     |                            |                           |                            |                      |                    |                       |                           |                         |                       |                      |                          |                     |                      |                          |                       |                               |                         |                       |                         |                                  |      |                         |                       |       |                        |                                   |                          |  |
| BINDWEED(Pr)           | N                   | P                          | N                         | N                          | C                    | N                  | N                     | N                         | N                       | N                     | N                    | N                        | N                   | P                    | N                        | P                     | N                             | P                       | P                     | -                       | N                                | N    | N                       | P                     | N     | P                      | -                                 | -                        |  |
| CHICKWEED              | C                   | C                          | C                         | C                          | C                    | C                  | C                     | C                         | P                       | C                     | N                    | C                        | C                   | C                    | N                        | C                     | N                             | C                       | C                     | C                       | P                                | C    | N                       | P                     | C     | C                      | C                                 | C                        |  |
| CLOVER                 | N                   | P                          | P                         | N                          | C                    | P                  | N                     | P                         | N                       | N                     | P                    | N                        | N                   | C                    | N                        | C                     | N                             | C                       | P                     | -                       | N                                | P    | N                       | P                     | N     | -                      | -                                 | C                        |  |
| DANDELION(Pr)          | N                   | N                          | N                         | N                          | C                    | N                  | N                     | N                         | N                       | N                     | N                    | N                        | N                   | N                    | N                        | P                     | N                             | -                       | C                     | -                       | N                                | N    | N                       | P                     | N     | N                      | -                                 | -                        |  |
| DOCK(Pr)               | N                   | N                          | P                         | N                          | N                    | N                  | N                     | N                         | N                       | N                     | N                    | N                        | N                   | N                    | N                        | P                     | N                             | -                       | P                     | -                       | N                                | N    | N                       | P                     | N     | -                      | -                                 | -                        |  |
| DODDER                 | N                   | C                          | N                         | N                          | C                    | N                  | N                     | N                         | N                       | N                     | P                    | P                        | N                   | C                    | N                        | N                     | N                             | P                       | C                     | -                       | N                                | N    | N                       | N                     | N     | C                      | -                                 | -                        |  |
| FIDDLENECK             | -                   | C                          | C                         | C                          | C                    | C                  | N                     | C                         | P                       | C                     | C                    | C                        | C                   | C                    | C                        | C                     | N                             | C                       | C                     | -                       | N                                | P    | -                       | P                     | C     | C                      | -                                 | -                        |  |
| FILAREE                | -                   | P                          | C                         | P                          | C                    | C                  | N                     | C                         | P                       | P                     | C                    | N                        | N                   | C                    | N                        | C                     | P                             | C                       | P                     | -                       | N                                | P    | N                       | C                     | C     | C                      | -                                 | -                        |  |
| FLEABANE, HAIRY        | N                   | P                          | P                         | C                          | C                    | N                  | N                     | N                         | P                       | N                     | P                    | N                        | N                   | C                    | N                        | C                     | N                             | C                       | C                     | -                       | N                                | P    | N                       | C                     | C     | -                      | -                                 | C                        |  |
| GOOSEFOOT              | P                   | C                          | C                         | C                          | C                    | C                  | P                     | C                         | C                       | C                     | C                    | C                        | C                   | C                    | C                        | C                     | N                             | C                       | C                     | -                       | N                                | C    | N                       | C                     | C     | -                      | -                                 | -                        |  |
| GROUNDCHERRY           | C                   | C                          | C                         | C                          | C                    | C                  | C                     | N                         | C                       | N                     | C                    | N                        | C                   | N                    | C                        | C                     | N                             | C                       | C                     | -                       | N                                | C    | N                       | C                     | P     | -                      | -                                 | -                        |  |
| GROUNDSEL, COMMON      | N                   | C                          | N                         | C                          | C                    | C                  | N                     | C                         | P                       | N                     | C                    | N                        | N                   | P1                   | N                        | C                     | C                             | N                       | C                     | C                       | N                                | C    | N                       | C                     | P     | C                      | C                                 | C                        |  |
| HORSEWEED              | N                   | P                          | P                         | C                          | C                    | N                  | N                     | N                         | P                       | N                     | P                    | N                        | N                   | C                    | N                        | C                     | C                             | N                       | C                     | -                       | N                                | P    | N                       | C                     | P     | -                      | -                                 | C                        |  |
| KNOTWEED               | N                   | C                          | C                         | P                          | C                    | P                  | N                     | C                         | P                       | C                     | P                    | C                        | C                   | C                    | C                        | P                     | C                             | N                       | P                     | P                       | -                                | N    | P                       | N                     | P     | -                      | -                                 | -                        |  |
| LAMBSQUARTERS          | P                   | C                          | C                         | C                          | C                    | C                  | C                     | P                         | C                       | P                     | C                    | C                        | C                   | C                    | C                        | C                     | N                             | C                       | C                     | N                       | N                                | C    | N                       | C                     | C     | P                      | C                                 | C                        |  |
| MALVA                  | P                   | C                          | P                         | N                          | C                    | C                  | P                     | P                         | P                       | P                     | C                    | P                        | P                   | P                    | N                        | P                     | P                             | N                       | C                     | P                       | -                                | N    | P                       | N                     | P     | C                      | C                                 | C                        |  |
| MUSTARD                | N                   | C                          | C                         | N                          | C                    | C                  | N                     | P                         | P                       | N                     | C                    | P                        | C                   | C                    | N                        | C                     | C                             | N                       | C                     | C                       | N                                | C    | N                       | C                     | C     | C                      | -                                 | -                        |  |
| NETTLE, BURNING        | C                   | C                          | C                         | C                          | C                    | C                  | C                     | P                         | C                       | P                     | C                    | N                        | C                   | C                    | N                        | P                     | P                             | N                       | C                     | N                       | C                                | N    | P                       | N                     | P     | C                      | -                                 | C                        |  |
| NIGHTSHADE, BLACK      | C                   | C                          | C                         | P                          | C                    | C                  | C                     | N                         | C                       | N                     | C                    | N                        | C                   | C                    | N                        | P                     | C                             | N                       | C                     | C                       | N                                | N    | C                       | N                     | C     | P                      | P                                 | C                        |  |
| NUTSEDGE, PURPLE       | N                   | P                          | N                         | P                          | N                    | N                  | N                     | N                         | P                       | N                     | N                    | N                        | N                   | N                    | N                        | N                     | N                             | P                       | P                     | C                       | P                                | N    | N                       | N                     | N     | -                      | -                                 | N                        |  |
| PEPPERWEED, PERENNIAL  | N                   | N                          | N                         | N                          | N                    | N                  | N                     | N                         | N                       | N                     | N                    | N                        | N                   | N                    | N                        | N                     | P                             | N                       | -                     | P                       | N                                | N    | N                       | N                     | N     | -                      | -                                 | -                        |  |
| PIGWEEED               | C                   | P                          | C                         | C                          | C                    | C                  | C                     | C                         | P                       | C                     | C                    | C                        | C                   | C                    | C                        | P                     | C                             | N                       | C                     | C                       | P                                | N    | C                       | N                     | P     | C                      | C                                 | -                        |  |
| PINEAPPLE WEED         | -                   | C                          | C                         | C                          | -                    | C                  | -                     | P                         | P                       | N                     | P                    | N                        | N                   | C                    | N                        | P                     | C                             | N                       | C                     | C                       | -                                | N    | P                       | N                     | P     | P                      | C                                 | -                        |  |
| PLANTAIN, BUCKHORN(Pr) | -                   | -                          | N                         | -                          | N                    | -                  | N                     | N                         | N                       | N                     | N                    | N                        | N                   | N                    | N                        | N                     | P                             | N                       | -                     | P                       | -                                | N    | N                       | N                     | P     | N                      | C                                 | -                        |  |
| PRICKLY LETTUCE        | N                   | C                          | C                         | C                          | C                    | C                  | N                     | C                         | P                       | N                     | C                    | N                        | N                   | C                    | N                        | C                     | C                             | N                       | C                     | C                       | N                                | P    | N                       | C                     | C     | C                      | -                                 | -                        |  |
| PUNCTURE VINE          | -                   | C                          | P                         | N                          | C                    | C                  | -                     | P                         | C                       | P                     | C                    | P                        | N                   | P                    | P                        | C                     | C                             | N                       | C                     | C                       | -                                | P    | C                       | N                     | C     | -                      | -                                 | -                        |  |
| PURSLANE               | C                   | C                          | C                         | C                          | C                    | C                  | C                     | C                         | C                       | C                     | C                    | C                        | C                   | C                    | C                        | N                     | C                             | N                       | C                     | P                       | P                                | N    | C                       | N                     | C     | P                      | P                                 | C                        |  |
| RUSSIAN THISTLE        | P                   | C                          | P                         | P                          | C                    | P                  | P                     | C                         | C                       | P                     | P                    | P                        | P                   | C                    | P                        | C                     | C                             | N                       | C                     | C                       | -                                | N    | C                       | N                     | C     | -                      | -                                 | -                        |  |
| SHEPERSPURSE           | N                   | C                          | C                         | P                          | C                    | C                  | P                     | P                         | P                       | N                     | P                    | P                        | C                   | C                    | N                        | C                     | C                             | N                       | C                     | C                       | C                                | N    | P                       | N                     | C     | C                      | C                                 | C                        |  |
| SOWTHISTLE             | P                   | C                          | C                         | C                          | C                    | C                  | P                     | C                         | P                       | N                     | C                    | N                        | N                   | C                    | N                        | C                     | C                             | N                       | C                     | C                       | C                                | N    | P                       | N                     | C     | C                      | C                                 | C                        |  |
| SPURGE, PROSTRATE      | -                   | C                          | N                         | N                          | C                    | N                  | N                     | N                         | P                       | C                     | N                    | P                        | P                   | N                    | P                        | C                     | P                             | N                       | C                     | C                       | -                                | N    | C                       | N                     | P     | C                      | -                                 | -                        |  |
| STARTHISTLE, YELLOW    | -                   | C                          | C                         | -                          | -                    | C                  | -                     | -                         | -                       | N                     | C                    | N                        | N                   | C                    | N                        | P                     | C                             | N                       | C                     | C                       | -                                | N    | C                       | N                     | C     | C                      | N                                 | -                        |  |
| WILD RADISH            | N                   | C                          | C                         | N                          | C                    | C                  | N                     | N                         | N                       | N                     | C                    | N                        | P                   | P                    | N                        | C                     | C                             | N                       | C                     | C                       | C                                | N    | C                       | N                     | C     | C                      | -                                 | -                        |  |
| WILLOWHERB, PANICLE    | -                   | -                          | N                         | -                          | P                    | -                  | -                     | N                         | P                       | P                     | C                    | -                        | -                   | N                    | -                        | -                     | N                             | C                       | P                     | -                       | -                                | N    | N                       | C                     | -     | -                      | -                                 | C                        |  |
| <b>GRASSES</b>         |                     |                            |                           |                            |                      |                    |                       |                           |                         |                       |                      |                          |                     |                      |                          |                       |                               |                         |                       |                         |                                  |      |                         |                       |       |                        |                                   |                          |  |
| BARNYARDGRASS          | C                   | P                          | C                         | C                          | N                    | C                  | C                     | C                         | C                       | C                     | P                    | C                        | C                   | P                    | C                        | N                     | N                             | C                       | C                     | C                       | P                                | P    | P                       | C                     | N     | P                      | C                                 | -                        |  |
| BERMUDAGRASS(Pr)       | N                   | P                          | N                         | N                          | N                    | N                  | N                     | N                         | P                       | N                     | N                    | N                        | N                   | N                    | N                        | N                     | N                             | P                       | P                     | C                       | N                                | N    | N                       | P                     | N     | N                      | N                                 | -                        |  |
| BLUEGRASS, ANNUAL      | C                   | C                          | C                         | C                          | N                    | C                  | C                     | C                         | C                       | C                     | P                    | C                        | C                   | C                    | C                        | N                     | N                             | N                       | C                     | C                       | N                                | N    | P                       | N                     | P     | C                      | -                                 | -                        |  |
| BROME, RIPGUT          | -                   | -                          | C                         | C                          | N                    | -                  | -                     | C                         | C                       | C                     | -                    | C                        | C                   | -                    | C                        | N                     | N                             | C                       | C                     | C                       | -                                | -    | -                       | C                     | N     | -                      | -                                 | -                        |  |
| CRABGRASS              | C                   | P                          | C                         | C                          | N                    | C                  | C                     | C                         | C                       | C                     | N                    | C                        | C                   | N                    | C                        | N                     | N                             | C                       | C                     | C                       | -                                | C    | C                       | C                     | N     | C                      | P                                 | P                        |  |
| DALLISGRASS(Pr)        | N                   | N                          | N                         | N                          | N                    | N                  | N                     | N                         | N                       | N                     | N                    | N                        | N                   | N                    | N                        | N                     | N                             | N                       | P                     | C                       | N                                | C    | N                       | -                     | N     | -                      | -                                 | -                        |  |
| FESCUE                 | -                   | -                          | -                         | -                          | -                    | -                  | -                     | -                         | -                       | -                     | -                    | -                        | -                   | -                    | N                        | -                     | -                             | -                       | C                     | -                       | -                                | P    | -                       | N                     | -     | -                      | -                                 |                          |  |
| FOXTAIL, YELLOW        | C                   | -                          | C                         | C                          | N                    | C                  | C                     | C                         | C                       | C                     | N                    | C                        | C                   | C                    | C                        | N                     | N                             | C                       | C                     | C                       | -                                | -    | C                       | C                     | N     | C                      | C                                 | -                        |  |
| JOHNSONGRASS(Pr)       | N                   | N                          | N                         | N                          | N                    | N                  | N                     | N                         | C                       | N                     | N                    | N                        | N                   | N                    | N                        | N                     | N                             | C                       | P                     | C                       | -                                | N    | N                       | C                     | N     | N                      | -                                 | -                        |  |
| RYEGRASS               | C                   | -                          | C                         | C                          | N                    | N                  | C                     | C                         | C                       | C                     | N                    | C                        | C                   | P                    | C                        | N                     | N                             | C                       | -                     | C                       | N                                | N    | P                       | C                     | N     | P                      | C                                 | -                        |  |
| SANDBUR                | C                   | C                          | C                         | C                          | N                    | -                  | C                     | C                         | C                       | P                     | N                    | C                        | -                   | C                    | C                        | N                     | N                             | C                       | C                     | C                       | -                                | C    | P                       | C                     | N     | C                      | -                                 | -                        |  |
| WILD BARLEY            | P                   | C                          | C                         | C                          | N                    | C                  | P                     | C                         | C                       | C                     | P                    | C                        | C                   | C                    | C                        | N                     | N                             | C                       | -                     | C                       | -                                | N    | P                       | P                     | N     | C                      | C                                 | -                        |  |
| WILD OAT               | N                   | -                          | P                         | C                          | N                    | C                  | N                     | C                         | C                       | C                     | P                    | P                        | C                   | C                    | P                        | N                     | N                             | C                       | C                     | C                       | -                                | N    | P                       | C                     | N     | P                      | P                                 | C                        |  |

NOTES: Pr = Perennial \* - \* = No Ratings N = No Control P = Partial Control C = Control

## Herbicide Registration on Tree and Vine Crops--2005

| Herbicide-Common Name<br>(trade name)   | Apple | Apricot | Cherry | Fig | Grape           | Kiwi | Nect-<br>arine | Olive | Peach | Pear           | Pecan | Pomeg-<br>ranate | Pist-<br>achio | Walnut |
|---|-------|---------|--------|-----|-----------------|------|----------------|-------|-------|----------------|-------|------------------|----------------|--------|
| <b>Preemergence</b>   |       |         |        |     |                 |      |                |       |       |                |       |                  |                |        |
| dichlobenil ( <i>Casoron</i> )  | R     | N       | R      | N   | R               | N    | N              | N     | N     | R              | N     | N                | N              | N      |
| diuron ( <i>Karmex, Diurex</i> )  | R     | N       | N      | N   | R               | N    | N              | R     | R     | R              | R     | N                | N              | R      |
| EPTC ( <i>Eptam</i> )   | N     | N       | N      | N   | N               | N    | N              | N     | N     | N              | N     | N                | N              | R      |
| isoxaben ( <i>Gallery</i> )   | NB    | NB      | NB     | NB  | NB              | NB   | NB             | NB    | NB    | NB             | NB    | NB               | NB             | NB     |
| napropamide ( <i>Devrinol</i> )   | R     | R       | R      | R   | R               | R    | R              | R     | R     | R              | R     | R                | R              | R      |
| norflurazon ( <i>Solicam</i> )  | R     | R       | R      | N   | R               | N    | R              | N     | R     | R              | R     | N                | N              | R      |
| oryzalin ( <i>Surflan, Farm Saver</i> )   | R     | R       | R      | R   | R               | R    | R              | R     | R     | R              | R     | R                | R              | R      |
| oxyfluorfen ( <i>Goal</i> )   | R     | R       | R      | R   | R               | R    | R              | R     | R     | R              | R     | R                | R              | R      |
| pendimethalin ( <i>Prowl</i> )  | NB    | NB      | NB     | N   | NB              | N    | NB             | N     | NB    | NB             | NB    | N                | R              | NB     |
| pronamide ( <i>Kerb</i> )   | R     | R       | R      | N   | R               | N    | R              | N     | R     | R              | N     | N                | N              | N      |
| simazine ( <i>Princep, Caliber 90</i> )   | R     | N       | N      | N   | R               | N    | R              | R     | R     | R              | N     | N                | N              | R      |
| thiazopyr ( <i>Visor</i> )  | N     | NB      | NB     | N   | NB              | N    | NB             | N     | NB    | N              | N     | N                | NB             | NB     |
| Trifluralin ( <i>Treflan</i> )  | R     | R       | R      |     | R               | NB   | R              | NB    | R     | NB             | R     |                  |                | R      |
| <b>Post emergence</b>   |       |         |        |     |                 |      |                |       |       |                |       |                  |                |        |
| Clethodim ( <i>Prism</i> )  | NB    | NB      | NB     | N   | NB              | N    | NB             | NB    | NB    | NB             | NB    | N                | R              | NB     |
| 2,4-D ( <i>Clean-crop, Orchard Master</i> )   | R     | R       | R      |     | R               | N    | R              | N     | R     | R              | R     |                  |                | R      |
| fluazifop-p-butyl ( <i>FusiladeDX</i> )   | NB    | R       | R      | NB  | NB              | NB   | R              | NB    | R     | NB             | R     | NB               | NB             | NB     |
| Flumioxazin ( <i>Chateau</i> )  | NB    | NB      | NB     | NB  | R               | N    | NB             | NB    | NB    | NB             | NB    | N                | R              | NB     |
| glyphosate ( <i>Roundup, Touchdown</i> )  | R     | R       | R      | R   | R               | R    | R              | R     | R     | R              | R     | R                | R              | R      |
| glufosinate ( <i>Rely</i> )   | R     | N       | N      | N   | R               | N    | N              | N     | N     | N              | R     | N                | N              | R      |
| halosulfuron ( <i>Sandea</i> )  | N     | N       | N      | N   | N               | N    | N              | N     | N     | N              | R     | N                | N              |        |
| MSMA  | NB    | NB      | NB     | N   | N               | N    | N              | N     | NB    | NB             | N     | N                | N              | NB     |
| Paraquat ( <i>Gramoxone</i> )   | R     | R       | R      | R   | R               | R    | R              | R     | R     | R              | R     | N                | R              | R      |
| sethoxydim ( <i>Poast</i> )   | R     | R       | R      | NB  | R               | N    | R              | NB    | R     | R              | R     | NB               | NB             | R      |
| <b>Note:</b> This is intended as a general guide only. Before use of any herbicide, consult the label. Labels change frequently and often contain special restrictions regarding the specific use of a company's product. |       |         |        |     |                 |      |                |       |       |                |       |                  |                |        |
| N = Not registered  |       |         |        |     | NB = nonbearing |      |                |       |       | R = Registered |       |                  |                |        |

## **OVERSEEDING OF OLDER ALFALFA STANDS**

*By Rachel Long, UCCE Farm Advisor, Yolo Co.*

Overseeding is the planting of other forage species or alfalfa into existing alfalfa stands to extend the stand life of the alfalfa to maximize economic returns.

### **When to consider overseeding?**

Alfalfa stands that produce good high quality forage should not be mixed with other crops. However, when alfalfa stands fall below approximately 5 plants/ft<sup>2</sup>, yields decline. At this point a decision should be made to either extend the stand life of the alfalfa by overseeding with another forage, or to remove the stand and rotate to another crop.

The choice of an overseeded forage depends on how long the alfalfa field will stay in production and on the intended market. Annual forages are selected for those fields that will be in production for less than a year; perennials for those with anticipated production for one or more years. Legumes are recommended if the intended market is the dairy industry because of their high forage quality. Grass mixes are recommended for the horse hay market. The range of crude protein, acid detergent fiber, and neutral detergent fiber for alfalfa and overseeded species is shown in Table 1.

### **Overseeding with annuals**

The best annual forage for the dairy industry is likely to be berseem clover. Berseem resembles alfalfa in growth habit, is high in forage quality, resists weevils, tolerates saturated soils, and can increase yields by up to 2 tons/acre over alfalfa alone in the first 3 – 4 harvests. A disadvantage of berseem is that the higher moisture content and biomass takes longer to dry than alfalfa alone, which can be a problem during cool, wet springs.

Oat (or other cereals such as barley, wheat, and triticale) and tetraploid annual ryegrass are the best annual forages for the horse hay market. These cool season grasses make the greatest contribution to yield early in the season (1 -3 tons/acre) over alfalfa alone

and decline by summer. Grasses harvested in the vegetative stage have a higher crude protein and lower fiber (ADF and NDF) than those cut during early bloom. Grasses overseeded into alfalfa need to be fertilized with 40 – 60 lbs of total nitrogen per acre. Annual grasses are competitive with alfalfa and can cause stand losses. Select disease resistant varieties to maximize stand health. During some years it may be difficult to cure large volumes of high moisture forage.

### **Overseeding with perennials**

The best perennial forage for the dairy industry is red clover. Red clover is similar to alfalfa in forage quality and has increased yields by 2 tons per acre in poor alfalfa stands. Red clover also resists weevils, is competitive against weeds, and tolerates poorly drained soils. However, red clover is a very slow growing perennial so increased yields may not be seen until the following year. It has a higher moisture content than alfalfa so takes longer to cure, and is heat sensitive so yields decline in summer.

There are many perennial grass forages for the horse market, including orchardgrass, tall fescue, perennial ryegrass, brome grass and timothy. Yields are increased in alfalfa fields overseeded with grasses compared to alfalfa alone. As with annual grasses, forage quality depends on time of harvest with earlier cuttings having higher protein and lower fiber than later ones. Compared with annuals, perennial grasses are slow to establish, and one season is usually required before a full yield potential is reached. Perennial grasses provide good winter and summer weed control; however, foxtail is often a problem in perennial grass/alfalfa stands, but can be controlled in established grass stands with TR10. The perennial grasses listed in Table 2 are cool season grasses, so productivity drops off significantly during summer months because of heat sensitivity. Perennial grasses need to be fertilized with 40 – 60 lbs of nitrogen per acre per cutting. Large volumes of high moisture forage may be difficult to cure in some years. If fescue varieties are used, choose endophyte free varieties (fungus in some fescues may affect health of livestock).

## Overseeding alfalfa into alfalfa

Results with overseeding alfalfa into alfalfa in our area of the Central Valley have been mixed. Some growers have seen a yield increase associated with this practice, others have not. Autotoxicity (effect of existing alfalfa plants on germination of new plants), competition for light, nutrients and water by existing alfalfa plants may affect the newly germinating alfalfa.

In addition, factors that caused the stand loss to begin with (such as low spots) impact alfalfa seedling development.

More information on overseeding, including seedbed preparation and seeding methods can be obtained from the “Overseeding and Companion Cropping in Alfalfa” publication by Canevari, et al. 2000. UC ANR Publication #21594.

Table 1. Range of typical crude protein (CP), acid detergent fiber (ADF) and neutral detergent fiber (NDF) levels for alfalfa and overseeded species.

| Species                   | Stage at swathing    | CP (%)  | ADF (%) | NDF (%) |
|---------------------------|----------------------|---------|---------|---------|
| Alfalfa, supreme          | Vegetative early bud | 22 – 26 | <27     | <34     |
| Red clover                | Early Bloom          | 18 – 20 | 27 – 32 | 35 – 42 |
| Berseem clover            | Early bloom          | 18 – 22 | 24 – 30 | 36 – 42 |
| Annual ryegrass           | Vegetative           | 14 – 16 | 27 – 33 | 40 – 48 |
| Orchardgrass              | Vegetative           | 15 – 18 | 30 – 34 | 45 – 50 |
| Orchardgrass — fescue mix | Early heading        | 10 – 14 | 32 – 37 | 50 – 65 |

Table 2. Seeding dates and rates for crops overseeded into alfalfa for the Central Valley.

| Crop  | Seeding date | Seeding rate, lb/acre |
|---|--------------|-----------------------|
| <b>Annual Grasses</b>                         |              |                       |
| Cereals, oat, barley, wheat                   | Oct – Jan    | 40 – 60               |
| Tetraploid annual ryegrass                    | Oct – Dec    | 4 – 8                 |
| <b>Perennial Grasses</b>                      |              |                       |
| Orchardgrass, tall fescue, perennial ryegrass | Oct – Dec    | 4 – 8                 |
| Bromegrass                                    | Oct – Dec    | 20 – 30               |
| <b>Annual Legume</b>                          |              |                       |
| Berseem clover                                | Oct – Dec    | 6 – 12                |
| <b>Perennial Legume</b>                       |              |                       |
| Red clover                                    | Oct – Dec    | 8 – 12                |

## UC RELEASES NEW CHERRY ROOTSTOCKS

UC has recently patented and released 3 new clonal Mahaleb rootstocks for sweet cherries, numbered 155-1, 156-5, and 159-5. The University is in the process of licensing nurseries to produce these stocks and they will soon be available for planting from licensed nurseries.

The new rootstocks came out of a long-term project aimed at finding Mahaleb rootstocks with relative resistance to Phytophthora root and crown rot as well as other desirable characteristics. They have gone

through both greenhouse screening and field trials. Rootstocks 155-1 and 156-5 have exhibited greater resistance to Phytophthora root and crown rot than the standard seedling Mahaleb rootstocks. In addition, rootstocks 156-5 and 159-5 have shown some measure of size reduction when Bing was used as the scion variety.

If you would like more information on the performance of these three rootstocks, see a more complete discussion of trial results on the San Joaquin County website at <http://cesanjoaquin.ucdavis.edu>. - click on publications – or call my office for a copy.



## UC RELEASES NEW PISTACHIO VARIETIES

Three new pistachio varieties - Golden Hills, Lost Hills, and Randy - have been bred and released by pomology breeders in the UC Davis Department of Plant Sciences. UC is currently licensing nurseries in California who want to propagate these materials and they should be available from nurseries in the near future. To obtain nursery propagating material, contact Foundation Plant Services at 530-752-3590 or [fps@ucdavis.edu](mailto:fps@ucdavis.edu).

*Randy* is a new, early flowering, male pistachio that may be used as a pollenizer for “Golden Hills” and “Lost Hills”. It blooms 1-3 weeks earlier than “Peters” and may pollinate the early part of the “Kerman” flowering period during low chill years. “Randy was selected for high pollen viability, pollen durability, and a high level of pollen production.

*Golden Hills* is a new female variety that produces greater yield with a higher percentage of split, edible nuts than “Kerman”. It has a similarly low percentage of loose shells and kernels. It harvests 2-4 weeks earlier than “Kerman” which extends the harvest

season and reduces the risk of rain damage. Use “Randy” as a pollinizer.

*Lost Hills* is a new female variety that produces larger nuts with a higher percentage of split, edible nuts than “Kerman”. Yields tend to be higher than “Kerman” especially under low chill conditions. It harvests 2-4 weeks earlier than “Kerman” which extends the harvest season and reduces the risk from rain and navel orange worm. Use “Randy” as a pollinizer.

## PROCESSING TOMATO VARIETY TRIAL

Every year I plant an early season processing tomato variety trial in conjunction with a series of identical trials coordinated by UC Farm Advisors throughout the state. This year the trial was planted on March 15<sup>th</sup> in cooperation with Anthony Massoni of Simoni and Massoni Farms. It was located just south of Hoffman Lane on a Sorrento silty clay loam soil. The field Variety was Halley 3155. Harvest was on August 10<sup>th</sup>. The trial averaged 47 tons per acre which wasn’t too bad considering the long cool wet spring and a blistering July. The top 4 yielding varieties were BOS 66508 (Orsetti), H-5003 (Heinz), Halley 3155 (Orsetti), and U 250 (Unilever). The complete results are shown in the table below.

| Variety        | Seed         |  | Yield<br>(tons/acre) | Brix-Yield<br>(tons/acre) | Soluble           | PTAB  | pH    |      |
|----------------|--------------|--|----------------------|---------------------------|-------------------|-------|-------|------|
|                | Company      |  |                      |                           | Solids<br>(°Brix) | Color |       |      |
| 11 BOS 66508   | Orsetti      |  | 54.0                 | a                         | 2.97              | 5.50  | 24.25 | 4.33 |
| 3 H 5003       | Heinz        |  | 52.6                 | ab                        | 3.05              | 5.80  | 24.00 | 4.40 |
| 12 Halley 3155 | Orsetti      |  | 50.3                 | abc                       | 2.98              | 5.93  | 26.50 | 4.28 |
| 6 U 250        | Unilever     |  | 50.2                 | abc                       | 2.60              | 5.18  | 25.50 | 4.39 |
| 5 H 9997       | Heinz        |  | 49.2                 | bcd                       | 2.58              | 5.23  | 23.50 | 4.41 |
| 1 APT 410      | Asgrow       |  | 49.0                 | bcd                       | 2.60              | 5.30  | 24.50 | 4.34 |
| 2 HMX 2853     | Harris Moran |  | 48.2                 | cd                        | 2.87              | 5.95  | 25.50 | 4.38 |
| 8 Hypeel 45    | Peto         |  | 45.9                 | de                        | 2.73              | 5.95  | 25.25 | 4.32 |
| 4 H 9280       | Heinz        |  | 43.2                 | e                         | 2.20              | 5.08  | 24.50 | 4.32 |
| 7 U 446        | Unilever     |  | 42.5                 | e                         | 2.37              | 5.58  | 23.50 | 4.37 |
| 9 PS 740       | Seminis      |  | 42.4                 | e                         | 2.47              | 5.80  | 24.50 | 4.34 |
| 10 HA 3523     | Hazera       |  | 36.0                 | f                         | 1.87              | 5.20  | 24.50 | 4.52 |
| Mean =         |              |  | 47.0                 |                           | 2.6               | 5.5   | 24.7  | 4.4  |
| LSD @ .05 =    |              |  | 4.2                  |                           | 0.32              | 0.39  | 1.35  | 0.06 |
| C.V. =         |              |  | 12.3                 |                           | 15.4              | 7.9   | 4.8   | 1.6  |

## ANNOUNCEMENTS



### Farm to School Marketing Opportunity

The Agricultural Enterprise Committee of the Brentwood Agriculture Land Trust (BALT) is looking for Contra Costa County farmers interested in selling directly to local schools. BALT is working with the Brentwood Unified School District to create new direct marketing opportunities for local farmers through a pilot Farm to School lunch program at Edna Hill School in Brentwood. The program brings your farm fresh local produce to the school children through school lunch programs and provides you with market prices for your product. If you are interested, please contact Jenny Smith at 634-8793 or email [smithier@sbcglobal.net](mailto:smithier@sbcglobal.net). For more information about BALT, please see [www.brentwoodaglandtrust.org](http://www.brentwoodaglandtrust.org) or call us at 634-6738.

### Financial Assistance for Irrigated Agricultural Growers

The application period is currently open for growers in east Contra Costa County who have irrigation return water and/or storm water runoff leaving their croplands. Financial assistance is available to reduce the impact of runoff through the Natural Resources Conservation Service's (NRCS) Environmental Quality Incentives Program (EQIP). EQIP is a voluntary cost-share program designed to encourage farmers and ranchers to conserve and enhance their natural resources. Currently, water quality is one of the most important issues in California. With the existing Ag Waiver, owners and/or operators of

irrigated lands are required to manage their operations so they do not cause or contribute to surface water pollution. The NRCS' Concord office is strongly encouraging applications from owners and/or operators of irrigated agricultural land to help them comply with the Ag Waiver by reducing the quantity or improving the quality of both storm water and tail water discharges. Projects addressing more efficient use of irrigation water, soil conservation, and improved wildlife habitat are eligible. **The deadline for applications is November 18, 2005.** Please contact Lisa Hokholt or Joe Takai, at the USDA NRCS Concord Service Center at (925) 672-4577 ext. 100 for more information and assistance with the application process.

### Farm & Garden Apprenticeship

The Center for Agroecology & Sustainable Food Systems at UC Santa Cruz is announcing applications for their 2006 Apprenticeship in Ecological Horticulture. This 6 month, full time course provides training in the concepts and practices of organic gardening and small-scale farming. It is held annually at the 25 acre Farm and 3 acre Alan Chadwick Garden on the UC Santa Cruz campus. The course carries 20 units of UC Extension credit for the 300 hours of formal instruction and 700 hours of in-field training and hands-on experience in greenhouses, gardens, orchards, fields, and marketing outlets.

Each year 35-40 apprentices come from all regions of the US and abroad for the 6 month course. Most choose to live on the farm in their own tents, sharing cooking and other community responsibilities in a common kitchen/dining facility. Tuition is \$3,250 and there are several scholarships available for minority and/or limited income applicants.

**Applications are due November 1, 2005** for the program that runs from mid April to mid October 2006. For more information and an application contact Apprenticeship Information, CASFS - UCSC, 1156 High St, Santa Cruz, CA 95064; 831-459-3240; [apprenticeship@ucsc.edu](mailto:apprenticeship@ucsc.edu).

## RESOURCES

### Websites:

#### Ag Personnel Management Website

Check out the award-winning Agricultural Personnel Management Program Website (<http://apmp.berkeley.edu>). It contains a wealth of information on news, laws and agencies, labor market information, and much more.

### Publications:

#### Free UC Publications

The following are new UC publications which can be downloaded directly from the web at <http://anrcatalog.ucdavis.edu> or you can call my office for a free copy.

*Roundup Ready Alfalfa: An emerging Technology*  
12 pages. Publication 8153

*Managing Mosquitoes on the Farm*  
19 pages. Publication 8158

*Nursery Guide for Diseases Caused by  
Phytophthora ramorum on Ornamentals:  
Diagnosis and Management*  
20 pages. Publication 8156

#### Priced UC Publications

*Scheduling Irrigations: When and How Much* is back in stock. This step-by-step guide will help you develop the irrigation methods and scheduling that are best for your situation. \$25.00 Pub No 3396  
To order: 1-800-994-8849 or <http://anrcatalog.ucdavis.edu>

#### More Free Publications

*First Press: A Newsletter for Olive Oil Producers*  
This is a new UC electronic newsletter created to disseminate information of interest to California olive oil growers, producers and enthusiasts. It will be published quarterly, and contain news of

the latest UC research in the area of olive oil, as well as notices of upcoming events and other items of interest. For a free subscription, send an email to [vmorales@ucdavis.edu](mailto:vmorales@ucdavis.edu), requesting that you be placed on the *First Press* e-mailing list. Please include your name, business name, address and phone number so that we can update our records. You will be directed to an online site as each issue is published.

#### *Outlook for a Small Farm Meat Goat Industry for California*

The most consumed meat in the world isn't beef, chicken or pork – it's goat. Goat meat hasn't yet caught on in the United States like other parts of the globe, but that's why experts believe the domestic market has tremendous potential for growth. That could mean profits for producers and greater access to this desirable meat option for consumers. This 24 page research report can be downloaded free from the Small Farm Center website at



<http://sfc.ucdavis.edu/goatmeatpub.pdf>

Or to order a copy, write UC Small Farm Program, One Shields Ave., UC Davis, Davis, CA 95616, or call (530) 752-8136.

#### *Community-Based Watershed Management: Lessons from the National Estuary Program*

This new Environmental Protection Agency handbook describes innovative approaches developed and conducted by the 28 National Estuary Programs, which are community-based watershed management organizations that restore and protect coastal watersheds. Estuaries and the lands surrounding them are where rivers meet the sea, and where fresh water meets salt water. Although the handbook focuses on estuaries, experiences from these programs can be adapted for noncoastal watershed initiatives as well, EPA said. Available at <http://www.epa.gov/owow/estuaries/nepprimer/>.

# CALENDAR

## OCTOBER

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**13**

### **CONSERVATION TILLAGE DEMONSTRATION DAY**

RDC (DelCarlo) Farms, Roberts Island  
10 miles west of Stockton: From Hwy 4 go south on  
Maybeck Rd, turn right onto Muller Rd, go ½ mile to  
the farm (follow the oiled road).  
9am – 3pm; lunch provided – must RVSP; CE units  
Sponsors: UC Cooperative Extension, USDA/NRCS,  
San Joaquin Co RCD, San Joaquin Co Farm Bureau.  
Contact (209) 472-7127, ext 3.

**18-20**

### **WEED SCIENCE SCHOOL**

UC Davis  
For public and private professionals  
22 hours of PCA credit (requested)  
\$550.00, includes lunches  
Sponsor: UCD Weed Research & Information Center  
Contact: Gale Pérez (530) 752-1748; or  
<http://wric.ucdavis.edu>

**22**

### **ESTABLISHING THE SMALL VINEYARD**

UC Davis, 9am-4pm  
\$150 includes box lunch & course materials  
Sponsor: UC Davis Extension  
Contact: 1-800-752-0881 or  
[www.extension.ucdavis.edu](http://www.extension.ucdavis.edu)

**24-26**

### **CAPCA CONFERENCE**

Anaheim; [capca@capca.com](mailto:capca@capca.com)

**27-NOV 17**

### **OLIVE OIL PRODUCTION & EVALUATION**

Thursdays 6 – 9pm & Saturday 10/29, 9am – 3pm  
Sponsor: Santa Rosa Junior College  
Contact: (707) 525-3800 or [www.santarosa.edu](http://www.santarosa.edu)

**28**

### **SOIL EROSION CONTROL ISSUES FOR VINEYARDS**

Napa Valley Marriott  
8am – 4:30pm;  
\$295 includes box lunch & course materials  
Sponsor: UC Davis Extension  
Contact: 1-800-752-0881 or  
[www.extension.ucdavis.edu](http://www.extension.ucdavis.edu)

## NOVEMBER

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**8-10**

### **PISTACHIO PRODUCTION: A UCCE SHORT COURSE**

UC Merced, 550 E. Shaw Ave, Fresno, CA  
7am to 5 or 7pm; \$525 includes meals and materials  
Sponsor: UC Cooperative Extension  
Contact: [kacurley@ucdavis.edu](mailto:kacurley@ucdavis.edu); (530) 754-8523

**13-15**

### **CALIFORNIA FARM CONFERENCE**

Marriott Hotel, Ventura, CA  
Focus: small farm viability; includes trade show, tasting  
event, farm tours, shortcourses and workshops.  
Sponsors: UC Small Farm Center & many others  
Contact: (530) 756-8518, ext 38 or  
<http://www.californiafarmconference.com>

**16**

### **CURRENT ISSUES IN VINEYARD HEALTH**

Da Vinci Bldg, Davis;  
9am – 4pm; \$190 includes lunch and materials  
5.5 hours of PCA credit  
Sponsor: UC Extension  
Contact: 1-800-752-0881; [www.extension.ucdavis.edu](http://www.extension.ucdavis.edu)

### **NAPA VALLEY VITICULTURE FAIR**

Napa  
Contact: 1-707-944-8311, ext 14;  
[vitfair@napagrowers.org](mailto:vitfair@napagrowers.org)

**17**

### **CONTRA COSTA COUNTY PEST MANAGEMENT CONTINUING EDUCATION WORKSHOP**

Continuing education for private applicators and all  
other growers; this is the only class offered this year  
Delta Farm Center, Delta Rd & 2<sup>nd</sup> St, Knightsen  
Sponsor: CCC Department of Agriculture  
Contact: (925) 427-8610

**18**

### **OLIVE OIL HARVEST EFFICIENCY FIELD DAY**

9 – 11am; North Coast  
Contact: Vivian (707) 565-2303 for reservations and  
information

**DECEMBER**

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**13-14**

**NATIONAL ALFALFA SYMPOSIUM**

San Diego

Contact: (530) 752-8982; <http://alfalfa.ucdavis.edu>

**JANUARY 2006**

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**19-22 & 25**

**ECOLOGICAL FARMING CONFERENCE**

Pacific Grove

Contact: (31) 763-2111; [info@ecofarm.org](mailto:info@ecofarm.org)

**25-27**

**UNIFIED WINE & GRAPE SYMPOSIUM**

Sacramento

Contact: 1-800-550-1496;

[www.unifiedsyposium.org](http://www.unifiedsyposium.org)

**30-FEBRUARY 1**

**CALIFORNIA LEAGUE OF FOOD  
PROCESSORS EXPO & SHOWCASE**

More than 200 exhibits

Contact: (916) 444-9260; [www.clfp.com](http://www.clfp.com)



# CROP CURRENTS

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Hope you find something of interest in this issue.

Janet Caprile  
Farm Advisor  
jlcaprile@ucdavis.edu

## FALL 2005

- **LOCAL MEETINGS**
- **COVER CROPS**
- **HERBICIDE REGISTRATIONS & PERFORMANCE**
- **OVERSEEDING OLDER ALFALFA STANDS**
- **TOMATO TRIAL RESULTS**
- **NEW UC VARIETIES:** Cherry rootstocks & Pistachio varieties
- **ANNOUNCEMENTS:** EQIP \$, Farm-School, Apprenticeship
- **RESOURCES:** Publications & Websites
- **CALENDAR:** Classes/Meetings/Events

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