



In-A-Nutshell



Mark Your Calendar for Tri-County Walnut Day

The 32nd annual "Tri-County Walnut Day" is set for Thursday, February 1st, 2001, at the Visalia Holiday Inn (airport). An excellent program is being prepared that includes both U.C. and industry discussions. Our agenda and registration materials will be sent to you in the January issue of In-A-Nutshell.

Prune Mature Walnut Trees Every Other Year

Walnuts alternate bear somewhat. That is, heavy crops are usually followed by lighter crops. The extent of alternate bearing is dependent on variety and crop size. Pruning is one management tool that can be used to mitigate alternate bearing to some extent. It's been well established that pruning healthy mature walnuts every other year maximizes crop by mitigating alternate bearing and minimizes cost at the same time.

To initiate an every other year program, the best strategy is to prune before the expected heavy crop, not before a light crop. For example, this season, Serrs have an especially light crop and much heavier crop can be expected next year. By pruning Serrs this winter some crop will be inadvertently removed, generating shoot growth for the '01 season. Don't prune preceding the 2002 crop year, probably a light crop year.

It's OK to Prune Before Leaf-Fall

For mature trees, this is a good time to prune; the weather is good too (hopefully), pruners are available

after harvest, and most importantly, pruners can see where the problems are, such as shading and dead limbs that need to be corrected. In October/November, mature trees are dormant and regrowth in response to a cut will not occur.

Machine pruning (hedging) mature trees in October/November is fine. This is the best time to prune as heavy equipment can access the orchard before winter rains.

Note: **Do not** prune young, vigorous trees in fall. Often, such trees are not, as yet, fully dormant. Delay pruning such trees until late winter.

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Steps to Avoid Winter Freeze Damage in Young Walnut Trees

Young walnut trees that grew vigorously last season and into this fall can be damaged by sharp winter freezes. Here is a reminder of the steps that can be taken to avoid damage:

- ✓ Hopefully this one has already been done – it was the most important. Water should have been

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cut off to these young trees in late August or early September to encourage tree dormancy. The last thing one wants is to have these young trees growing vigorously into the fall.

- ✓ Irrigate again lightly in early November (if the soil has not been already wetted by rainfall) to ensure the trees don't go into the winter dry – this is important too. The trees will be dormant so the effect is to simply have soil moisture available to the trees when a freeze event happens. Dry trees are much more sensitive to winter freezing.
- ✓ Prune in late February or early March. Although research information regarding pruning time's effect on freeze damage to other fruit trees is ambiguous, some information and some experiences suggest early (fall and early winter) pruning promotes susceptibility to freeze damage. No information exists specific to walnuts so we don't know how effective late pruning would be, but, my suggestion, "why not".

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Preemergent Weed Control Alternatives

Kurt Hembree, U.C. Farm Advisor, Fresno Co.

If you are a grower of tree or vine crops in California, I'm sure you are aware by now that Surflan production for the 2001 season will be significantly impacted. According to Dow AgroSciences, a recent explosion near their southern manufacturing facility has halted production of one of the more popular tree and vine preemergence herbicides. As a result, amounts available to growers will be *extremely limited* this coming season. Therefore, your current stock of Surflan herbicide will most likely be all that is available. Surflan has been very effective at controlling a wide array of annual grasses (like annual bluegrass, barnyardgrass, foxtails, etc.) and a select number of broadleaves (like chickweed, lambsquarters, purslane, and pigweeds). It is routinely tank-mixed with a broadleaf preemergence herbicide (usually Goal) to provide

broad-spectrum weed control. Single or split applications are often made to obtain season-long control.

While it would be nice to say that there are plenty of alternatives and you have nothing to worry about, this is obviously not the case. Because growers are left with limited options, it will be very important that growers carefully select the most appropriate course of action to control their weeds. Certain considerations should be taken when deciding on which alternatives are the "best".

The best starting point is to have a full understanding of which weeds you expect to have in your field. If you have a whole host of weeds that require something other than Surflan for control, this is a good opportunity to look towards other options. If you are unsure of your weed spectrum, start looking for winter annuals as the temperatures begin to decline in the fall and the summer annuals in late winter or early spring. While preemergence herbicides will not control the emerged weeds, it will give you a better understanding of what weeds you do have. You still have the option at that point of controlling them with a timely postemergence treatment (Roundup Ultra, Gramoxone, Touchdown, etc.).

Once you do know which weeds you are battling, you can select from the list of currently registered pre- and/or postemergence herbicides that best fit your needs. The herbicide labels are pretty clear as to the specific weeds each will control. If unsure about the identity of certain weeds, contact your local farm advisor, PCA, or manufacturer representative for assistance. In many instances, you may have to use combinations of pre- and postemergence treatments to meet your goals. See Table I for a list of herbicides that are registered in selected tree and vine crops in California.

Of the herbicides currently labeled, Devrinol or Solicam may offer the closest control when compared to Surflan and are registered in a majority of the tree and vine crops. However, it is important to understand that they will not work for all weed



types or field conditions. For example, Devrinol must be incorporated within 4 to 7 days or the efficacy will decline. Time the treatment just ahead of a storm with a predicted rainfall of at least 1/2". Leasing additional spray equipment to get the job done on time or using a custom applicator may be needed where large acreage is a concern. Keep in mind, Devrinol tends to break down rapidly under wet conditions, especially in the spring and summer under frequent low-volume irrigation. Follow-up sprays with postemergence herbicides may also be required. In addition to the weeds Surflan controls, Devrinol will also control cudweed, filaree, prickly lettuce, pineappleweed, sowthistle, and others. Devrinol can be tank-mixed with other pre- and postemergence herbicides for broader weed control.

Solicam is perhaps a little weaker on the annual grasses, compared to Surflan, but is very effective at suppressing nutsedge. It is also effective on the mustard species, cudweed, and nightshade and will suppress filaree, groundsel, horseweed, and flaxleaved fleabane. Solicam can be tank-mixed with other pre- and postemergence herbicides for broader weed control. One of the major weaknesses of Solicam is its performance under light soil conditions and frequent low-volume irrigation. Solicam is fairly soluble in water and can be readily leached into the root zone, causing bleaching of the desirable crop foliage. Caution must be used to avoid possible phytotoxicity. It is important to adjust the rate based on your particular soil texture. Please consult the appropriate label for recommended rates under varied soil types.

Finally, we do have a good selection of contact and systemic postemergence herbicides available. They are very effective at controlling most of the annual weeds you will encounter, but must be applied in a timely manner to keep them under control. If you choose to move towards a more postemergence approach to weed control, keep in mind that the weeds should be treated before they become hairy or mealy or prior to setting seed. For flaxleaved fleabane or horseweed control, it is best to treat when they are no more than 4" tall and before they begin to bolt. Some weeds like spurge can produce

a large amount of seed rapidly (in less than 20 days after emergence), so timing of postemergence sprays is critical to reduce the future population. Additional sprays or spot treatments will likely be needed near sprinkler emitters where weed flushes tend to be great. If entering wet fields is not an option for you in the winter, consider one of the preemergence herbicides, followed by timely postemergence treatments as access becomes available.

Several people and commodity groups are pursuing a Section 18 for use of Visor in almonds. It is not known at this time whether it will be approved, but if approved, will not likely be available until after the first of the year. So in the meantime, look at the other options as a possible solution to the Surflan shortage. If in doubt of your options, contact your local farm advisor, PCA or industry representative for assistance.

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Sibbett to Retire 1 February 2001

Yep, after 35+ years with U.C. Cooperative Extension in Tulare Co. (beginning in 1965 when our office was in the basement of the downtown post office) it's time to concentrate on those activities I enjoy most – including finishing up several projects and continuing to work privately in agriculture, particularly nut crops and olives.

Its been a "good run" – fun too. I've truly enjoyed the growers I've worked with, especially those that have cooperated in our local research projects that have produced the advancements improving nut crop production and quality (and hopefully profit too) statewide. The best research cooperators in the state reside in Tulare Co. - the rest of the state benefits from their commitment to improve nut crop production and quality. It has also been gratifying to see our local industry implement profitable cultural changes brought about via the educational efforts U.C. Cooperative Extension in Tulare Co. has developed over the years. We still don't know all of the answers but certainly we have found and implemented a few during my tenure here.

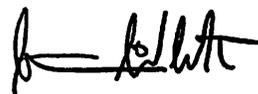


Table 1. 2001 Herbicide Label Status for Nut Crops^{1,2,3}

Herbicide	Pecan	Almond	Pistachio	Walnut
<i>Preemergence</i>				
Devrinol	R	R	R	R
Eptam	--	R	--	R
Goal	R	R	R	R
Karmax	R	--	--	R
Simazine	--	--	--	--
Prowl	--	NB	NB	NB
Solicam	R	1.5+ ³	--	1.5+
Surflan	R	R	R	R
Treflan	R	R	--	R
Sinbar	R	--	--	--
<i>Postemergence</i>				
Paraquat	R	--	--	--
Fusilade	R	NB	NB	NB
MSMA (Bueno)	--	NB	--	NB
Poast	NB	R	NB	R
2,4-D (Orchard Master)	R	R	R	R
Roundup	R	R	R	R
¹ R = registered; -- = nonregistered; NB = nonbearing orchards only. ² Note, this is intended as a general guide only! Before use of any herbicide consult the label carefully. Labels change frequently and often contain special restrictions regarding specific use of a company's product. ³ Number of years trees must be established.				

Fall Check List

- ✓ Apply residual herbicides before winter weeds germinate. Remember, water is needed (usually rain) to move the herbicide into the root zone to be effective.
- ✓ Prepare new orchard sites or tree sites for planting. This includes soil profile modification (ripping, slip planting, backhoeing, etc.), fumigation and irrigation system installation.
- ✓ Review your grade sheets to develop management strategies for next season.



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