

AGRICULTURAL EXTENSION STAFF REPORT
COOPERATIVE EXTENSION WORK IN AGRICULTURE AND HOME ECONOMICS
U. S. Department of Agriculture and University of California Cooperating

CEMIS Form 3

Monthly Report of:

Lonnie Hendricks Farm Advisor Merced County January 31, 1974
Title & Name Location Month Ending
Date February 7, 1974 Signature Lonnie Hendricks

PRUNING WALNUTS

During the month of January I had a number of calls on pruning and training walnuts. Years ago, growers were not very interested in pruning, because few of the old varieties were highly fruitful. Many new varieties have been introduced by the University of California at Davis and are being planted. These varieties must be carefully pruned. Growers are aware that lack of pruning will cause excessive bearing early in the life of the orchard. They are seeking advice on the best method for each variety.

A new statewide bulletin on minimum pruning of walnut trees is to be published soon. This bulletin has been under development for some time and I hope that it is soon available. My growers need this new publication. Many acres of Serr have been planted, and many of these orchards are in a critical stage of pruning at this time.

APRICOT BROWN ROT

The weather during late January and early February has been exceptionally dry in this area. I found the first sporodochia on January 17, 1974. This is about a month late for this area. Even during the first week in February the counts of sporodochia are extremely low. If the weather continues to be dry, we may have a very clean year for brown rot and other blossom diseases. I have several plots on brown rot control this year, but I would be very happy for the growers if no brown rot occurs. After the 1973 disaster my growers can certainly use a year with less blossom disease.

There were a very few sepals showing on apricot buds in this area by January 21. On February 1 there is approximately 50 to 75% redbud in a very early stage. Some of the redbud is just now beginning to balloon.

WALNUT PLANNING CONFERENCE

Pomology specialist Dave Ramos conducted the walnut farm advisors planning and reporting conference on January 30 and 31. This is a time consuming meeting, but the time spent is well worthwhile. As in the past, we each reported on our projects and made plans for new endeavors during the coming year. In this way there is less duplication of work and we each are aware of what other farm advisors are doing. I feel that this conference is essential in maintaining communications between the staff members of the Pomology Department at Davis and farm advisors. We also are able in this way to eliminate some projects which are less worthwhile and gain ideas for new projects which need attention. Dave has done a very good job with meetings of this type in order to keep all farm advisors and staff members informed.

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Monthly Report of:

<u>Farm Advisor LONNIE C. HENDRICKS</u>	<u>MERCED</u>	<u>February 28</u> 19 <u>74</u>
Title & Name	Location	Month Ending
Date <u>March 11, 1974</u> Signature _____		

TRI-COUNTY WALNUT INSTITUTE

A good deal of my time during February was spent preparing for the Tri-County Walnut Institute. This year it was hosted by Stanislaus and Merced Counties in Turlock. I arranged for a smaller building this year than we had two years ago at the fairgrounds. The sound quality and heating was much better. Our visual equipment is now very good, but we do need to improve the sound. We hope to obtain a better amplifier this year so that meetings of this type can be handled more efficiently in the future.

The attendance was somewhat down from last year. We had approximately 200 farmers at the meeting. I think there are several reasons for the drop. The weather was quite good in the morning of the 21st and, therefore, many growers may have wished to do field work rather than attend a meeting. The time of year was somewhat later this year and in future years it would be better to hold a meeting in early February or late January. There seems to be more attendance by area now that we have had the Tri-County meeting for several years. Growers from Stockton attend the Stockton meeting and growers from Stanislaus and Merced Counties tend to come to the Turlock meeting.

I think in the future we may raise the attendance slightly by holding the meeting earlier in the season. However, I think that 175 to 200 people is a good size for a meeting of this type. Some of the past meetings which ranged up to 400 were almost too large to effectively teach. Such a large meeting means that less personal contact is possible, and the sound system and the visuals are much more difficult to use for such a large group. I think that in the future if we can maintain attendance at 200 to 250 this would be entirely adequate.

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Monthly Report of:

..... Lonnie Hendricks Farm Advisor Merced County March 19 74
Title & Name Location Month Ending
Date April 9, 1974 Signature Lonnie C. Hendricks

BROWN ROT

March started with three days of warm rain followed by many more sprinkles during the month. Up to March first we had no brown rot showing in apricots in this area. Due to the poor winter chilling the bloom was late and extended. Brown rot sprays were applied in many orchards approximately the first or second week of February. By the time rains came in March, these sprays were no longer effective.

About mid-March brown rot began to show in many Blenheim orchards. In early April many of the orchards which normally have the worst brown rot conditions show 50 to 300 strikes per tree.

This was a year when we least expected brown rot due to the very dry winter and very little rain. There were very light amounts of spores in the trees.

My brown rot experiment this year shows that no fungicide, including Benlate, is effective after three weeks. It has been hoped that Benlate applied at an early stage of bloom will give control throughout the bloom period. However this does not seem to be the case. Benlate which was applied three weeks before the rains began was ineffective in controlling brown rot as compared to the copper and Captan. It appears that during an extended bloom, where rain is frequent, at least two sprays of any material are required.

CONTINUING CONFERENCE

In early March the continuing conference between the Pomology Department and tree fruit, and nut Farm Advisors was held. This annual conference is an excellent opportunity for farm advisors and department personnel to get together and discuss common problems. This meeting is very valuable in maintaining good relationships between our groups. I think that we can accomplish more and maintain a better working relationship than can many other departments because we do communicate at this conference. Dave Ramos and the other Pomology specialists should be commended for their work in this regard.

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Monthly Report of:

.....Lonnie Hendricks.....Farm Advisor.....Merced County.....April.....19 74.....
Title & Name Location Month Ending
Date.....May 8, 1974.....Signature.....*Lonnie C. Hendricks Jr.*.....

APRICOT CROP

Due to the very mild winter, the apricot set state wide is very light. The set is especially light on Tilton variety. In this area we grow primarily Blenheim which have a somewhat better set than the Tilton, but the crop will be very light regardless. Cannerys are actively seeking fruit at this time and the price per ton will approach \$200 for this season.

WALNUT CROP

The walnut set on early varieties appears to be average at this time. The mild winter did not adversely affect Payne and Ashley to any great extent. The catkins shed pollen at a fairly good time for the female blossoms on these varieties. The later varieties such as Hartley and Franquette were much more severely affected by the mild winter. These varieties lost the catkins early and bloomed late. They did provide good overlapping shedding for the early varieties, but the crop appears to be very light on the late varieties.

At the present time the crop seems to be average for early varieties and below average for late varieties. The mild winter is not entirely responsible for this smaller crop. The 1973 crop was extremely heavy and in many cases the trees just have not returned with a heavy bloom in 1974.

Considering the large carry-over of approximately 65,000 tons, a smaller than normal crop will be welcome this year. Even with a smaller crop, the price will very likely be depressed due to this large carry-over.

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Monthly Report of:

.....Lonnie Hendricks.....Farm Advisor.....Merced County.....May.....1974.....
Title & Name Location Month Ending
Date June 5, 1974 Signature Lonnie Hendricks

CROWN ROT

In this year with reasonably normal rainfall one would not expect to see crown rot on many orchard trees. However, much of our rainfall occurred in March and was accompanied by warm temperatures. These are the very worst conditions for crown rot and many walnut trees at this time show symptoms of this disease. These trees are turning yellow with some wilting. Examination of the crown and root area shows the rot problem.

For a number of years we have encouraged growers to plant trees on ridges to prevent crown rot. In most cases where I have seen crown rot recently, trees were planted at ground level, trees are too closely spaced, and weed control is poor. We have had excellent results in controlling crown rot where trees are planted on ridges with good weed control.

WALNUT BLIGHT

The conditions which encourage crown rot are also those which make walnut blight a more severe problem. Blight is showing on many of the early varieties such as Payne and Ashley and also quite commonly on Eureka this year. The worst cases of blight are in those orchards situated in moist areas such as riverbottom areas and orchards which are sprinkled. Sprinkler irrigation seems to encourage blight in the lower limbs. This is a situation which may adversely affect a number of orchards in the future which are now being converted to sprinkler irrigation. Sprinklers may be detrimental to nut quality in some areas such as Modesto, Waterford, and Oakdale where blight can be quite a severe problem. Growers should definitely consider this possibility when converting from surface irrigation to sprinkler irrigation even though sprinklers offer great labor savings.

COLLEGE CLASS

On May 22 I talked to a horticulture class at Merced Community College. My topic was nutrition of fruit trees. This class was receptive and attentive, even though it was a long afternoon class. I feel that this was a good opportunity for me to expand my sphere of influence and meet students who may be orchardists in future years. I spent a good deal of time not only in preparing the subject matter for this presentation, but also in obtaining and organizing slides. I feel that the time was well spent and I would certainly be willing to talk to classes such as this again in the future when requested. I think I often get in a rut talking only to farmers and a change of pace such as this is stimulating.

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EMIS Form 3

Monthly Report of:

Lonnie C. Hendricks Jr. Farm Advisor Merced County June 30 1974 **
Title & Name Location Month Ending
Date July 10, 1974 Signature Lonnie C. Hendricks Jr. *

* See other side of this sheet for instructions. ** See other side. Do not write more than one page.

Walnut Blight

Walnut blight is very serious in early varieties this spring. The extended rains in March and April caused infections in many Ashley and Payne orchards on the east side of the valley. Growers who applied two sprays this year generally have reasonable good blight control. Even a single early spray at five to ten percent bloom gave fair control, whereas a later spray at fifty percent bloom gave poor or no control. In past years we have observed a difference in blight susceptibility between Vina and Ashley. This year the rains were later than normal, and the Vina has almost as much blight as Ashley. It appears that the resistance to blight may be more a matter of timing of bloom, which is later on the Vina, than a genetic resistance to walnut blight. There has been considerable nut drop during the month of June which can be attributed to blight. Many of these nuts show little blight on the hull, but are blighted in the kernel.

Fruit Dryer Opens

Del Monte Corporation opened a new fruit dryer in Los Banos during June. This dryer is now processing apricots from Los Banos and during the summer will dry pears and peaches from other districts. In past years we have had a very small number of canneries who bought fruit in Los Banos. This new dryer gives our growers one more alternative in marketing, and is very welcome to apricot growers in this area.

Apricot Picking is Early

Blenheim apricots were harvested as early as June 6th in Los Banos. Commonly the season begins about June 15th. This is one of the earliest seasons we've had with the exception of 1972 when the earliest orchard was picked approximately the first of June. The crop this year was fair compared to our average, and exceptionably good compared to the crop in the remainder of the state. Our Blenheims had some brown rot but the lack of winter chilling did not adversely effect this variety as much as the Tilton. We had a reasonably good crop at an exceptionally high price of \$215 per ton.

nt State Director, or the Associate

~~*** This report will be submitted for ten months each year—January through May, and July through November. Reports will be due to the Assistant State Directors (or the Associate Director for Berkeley Specialists) by the 10th of the month following the month being reported.~~

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Monthly Report of:

Farm Advisor Lonnie C. Hendricks Jr. Merced County July 1974
Title & Name Location Month Ending
Date July 30, 1974 Signature Lonnie C. Hendricks Jr.

July Rain

The unusual rain of .4" on July 9 did not damage any tree fruits or nuts in the Merced County westside. Apricots could have been severely damaged by brown rot if they were on the trees, but our last apricots were picked by July 6.

Some fruit rot occurred in tomatoes and cantaloupes. Minor rain damage was sustained by some alfalfa hay. In total the losses were quite minor.

July rains are very unusual in this area, although brief storms often come in August.

Walnut Pests

Walnut aphid levels have been very moderate this spring. The Trinoxys wasp has been very effective. Dusky veined walnut aphid has increased to high levels in some orchards. This insect could become a major pest if this trend continues.

Codling moth flights have been moderate and infestation is very low. Almost all growers have been doing a very good job of controlling this worm.

Spider mites have been very slow to build up this summer. The rain on July 9 helped to clean the trees and depress mite populations. It appears at this time that many growers may avoid spraying mites this summer.

In general the walnut crop is good this year and the growing conditions have been excellent.

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Monthly Report of:

Farm Advisor Lonnie C. Hendricks Jr. Merced County August 1974
Title & Name Location Month Ending
Date September 6, 1974 Signature Lonnie C. Hendricks Jr.

Annual Leave

I spent most of the month of August on annual leave. The last week of August was spent in routine farm calls and correspondence. Therefore, this report is very brief.

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Monthly Report of:

Lonnie C. Hendricks Jr. Farm Advisor Merced County September 76
.....
Title & Name Location Month Ending
October 7, 1974 Signature Lonnie C. Hendricks Jr.
Date

Navel Orange Worm

September has been a busy month harvesting walnut plots for navel orange worm control. These trees were harvested over three dates using Ethrel to speed the early harvest and avoid navel orange worm damage. This is planned work and will be reported at a later date and combined with research results from Tulare and Butte Counties.

"Golden Death"

During a September visit by Dr. Bill Moller to Merced County, we found an almond tree on the eastside which had "Golden Death". To my knowledge this is the first occurrence in Merced County. Later, in looking at an orchard with Marvin Gerdtz in Los Banos we discovered another tree with "Golden Death". It is carried by several vectors, and alfalfa and grapes are another host. This problem could become very serious for the California almond industry.

Long Hot Summer

Walnut harvest has been delayed as much as two weeks due to the long, extended hot weather during September. Under these conditions walnuts mature slowly, but lose quality rapidly. It appears that the quality of the walnut harvest this year will be substantially below 1973. Also due to the hot weather and extended harvest period many trees are running short of moisture, and leaves are turning yellow and falling. This may have some adverse effects on the 1975 crop. If fall rains in October come as predicted with many walnuts yet unharvested, quality problems could become much more severe and many nuts may be lost. This is a very difficult year for walnut growers. In addition to quality and harvesting problems the price which independents are paying is about 18¢ to 20¢ per pound. This is the lowest price since 1970 when farm costs were much lower than 1974. This price is very difficult to justify considering the smaller 1974 crop as compared to 1973 and the very high costs in farming today.

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Monthly Report of:

..... Farm Advisor LONNIE C. HENDRICKS MERCED October 31 1974
Title & Name Location Month Ending
Date November 8, 1974 Signature

MERCED COLLEGE CLASS:

On October 25th I conducted a tour of walnut orchards for a Merced Community College tree and vine class. Fortunately, the harvest was still under way. I showed them the complete harvest, hulling and drying operation in addition to cultural problems and diseases. I believe that the class benefited, and I truly enjoyed the opportunity to work with Mr. Dodson and his class.

HEDGING WALNUTS:

Walnut growers are again hedging their trees mechanically this year. Growers who have done this in past years are generally satisfied. In several cases, the yields have steadily increased with size and quality improving.

I still prefer a good hand pruning, but the cost is \$50 to \$60 per acre or more. Hedging for a typical orchard is \$17.50 per acre. Hedging is not as good as hand pruning but is much better than no pruning.

SALINITY DAMAGE:

Striking burn from excess chloride is evident in a number of orchards in the Gustine area. Toxicity symptoms began to show in August and were very severe by October. It appears that the water table is rising in these areas. The depth of water has always been marginal for walnuts where these symptoms are evident. The Gustine Drainage District may need several new wells to keep the water table to acceptable levels.

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Monthly Report of:

Farm Advisor LONNIE C. HENDRICKS Title & Name	MERCED Location	November 30 19 74 Month Ending
Date December 9, 1974 Signature _____		

PHLOEM CANKER FOUND IN ASHLEY:

In November I inspected an Ashley walnut orchard with Dr. Bill Moller and Diamond Walnut fieldman Bob Merrill. These trees are planted on Hanford sandy loam which has a hardpan in some areas and poor water penetration. Growth was poor and sunburn was evident on many of the trunks.

Cankers on a number of trees were visually identical to phloem canker, and the laboratory isolation confirmed our suspicions.

This canker is extremely rare on varieties other than Hartley, Gustine and Howe. Poor growing conditions seem to have predisposed the trees to infection. Minor surgery on these trees appears to have cured some cankers. With Hartley, poor growing conditions often seem to make the trees more susceptible to canker.

More observations are needed concerning this relationship, and perhaps more research is needed to determine whether improved cultural practices will reduce the damage done by canker.

POMOLOGY CONFERENCE:

The November 19 - 21 Fall Pomology Conference was excellent. Much needed information was presented, and an abstract was made available summarizing all of the presentations. Our specialists did an excellent job.