

KENTUCKY FRUIT NOTES

W. D. Armstrong, Horticulturist, Editor

Fruit Insect Control in 1946

P. O. RITCHER

Kentucky fruit growers had their ups and downs in 1946. The apple crop, thanks to the weather and DDT, was one of the cleanest produced in Kentucky in many years. The peach crop, due to a tremendous carry-over of curculio and a large second-brood, was one of the wormiest on record.

APPLE INSECTS

Codling moth. The spring of 1946 was unusually early and codling moths appeared ahead of schedule with emergence at Paducah beginning April 9. Following heavy moth emergence and some hatch, the latter part of April, the weather during May was cold and rainy much of the time, and quite unfavorable for codling moth development. This, combined with the use of DDT, resulted in one of the cleanest apple crops on record in the state up until the first of July.

Second-brood codling moths were late emerging but appeared in some numbers after the middle of July. Even in problem orchards most growers were able to hold worms in check by the use of 2 or 3 second-brood sprays spaced at 10 to 14-day intervals. Where DDT was used, an additional spray was needed in late August or early September to stop a late hatch of worms.

Mites. Even where DDT was used for the first time this year, severe mite infestations developed in some orchards and caused considerable bronzing and loss of foliage from late July on through August. In the Purchase area most of the damage was caused by the common red spider while in other sections the European red mite was prevalent, as well.

Continued use of DDT, which results in the destruction of mites' natural enemies, will make mites a

real problem. Our spray schedules must therefore be modified to include mite control. In other states, where mites have caused damage for many years, it has been shown that the dormant spray is the first point of attack because the European red mite overwinters on the apple twigs and branches in the egg stage. The best treatment is a spray containing 3 percent dormant spray oil (petroleum), applied thoroughly in the early spring on a quiet, fairly warm day. This is the same spray we have been using for scale control. Dinitro compounds added to this spray will kill eggs of the rosy aphid and other plant lice but are not necessary for mite control.

Dormant spraying will not fully eliminate mites and spiders from the next season's crop because the common red spider does not overwinter on trees alone and because mites spread quickly from other areas. Dormant spraying should delay their attack, however, until the fruit has reached considerable size and there is a good bud set for the following year. Experimental work has shown that summer oils and dinitro compounds can be used in the summer schedule to reduce the mite population but treatment must be begun while the mites are present but before much bronzing of foliage has occurred. Too many growers this past season began control measures after the damage was done, with the centers and tops of their trees already bare.

Certain varieties of apples seem to be more susceptible to mite attack than others. Of the commercial varieties, Red Delicious suffers the worst injury.

PEACH INSECTS

Curculio. Curculio adults appeared unusually early last spring and in large numbers. In spite of heroic efforts on the part of many peach growers, the 1946 crop was very

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wormy. Opinions differ as to all the causes involved, but the writer feels that the indifferent coverage obtained with dusts was to blame in some cases.

Harvest counts were made in a number of Western Kentucky orchards. In one Paducah orchard over 80 percent of the crop contained curculio and it was difficult to find a sound peach. In another orchard in the same district only 2 percent of the crop was wormy. Curculio infested peaches in most orchards ranged from 10 to 20 percent. In general, the best control was obtained in young orchards or where a very thorough program of spraying or dusting had been followed. Some growers had considerable trouble with arsenical injury to foliage but prompt use of nitrogen fertilizers corrected some of the trouble.

Oriental Fruit Moth. Injury from oriental moth was very spotty and, in general, lighter than in 1945. Two pre-harvest sprays of DDT again gave excellent control in the Eison orchard at Ledbetter where experimental results were so encouraging in 1945. Mites built up on the peach foliage, however, and may become a problem like they are on apples.

In cooperation with the Federal Bureau of Entomology and Plant Quarantine, an experiment was made in the Paducah section to see if oriental moth injury could be reduced by the mass liberation of the parasite *Macrocentrus ancylivorus*. Harvest counts showed little damage this year compared to much damage last year before the parasites were released.

Cat-Face. Cat-faced peaches were more numerous than last year, ranging from 7 to 28 percent of the crop in ten orchards. The type of cat-facing found on peaches in western Kentucky orchards is very different from that at Lexington or in eastern Kentucky, and is no doubt caused by different insects in each section. Several western Kentucky growers who used early DDT treatments felt they reduced the amount of injury considerably.

Scale. San Jose scale is still a problem in Kentucky peach orchards, as evidenced by the amount of scale-marked fruit found at harvest and the number of young scales seen crawling over the tree in

late July and August. To counteract scale, leaf curl and possible mite troubles, every grower should do an extra good job this year of applying the dormant spray. The best mixture to use is 3 percent oil plus 4-4-100 Bordeaux. Detailed instructions on mixing and application are given in Kentucky Extension Leaflet 9.

Peach Tree Borer. By the time this issue of the Fruit Notes appears it will probably be too late to apply the regular PDB treatment for peach tree borer control. This insect kills a great many trees and weakens others every year. Annual treatment is good insurance even if a grower thinks his orchard is free of borers. Growers who failed to treat their trees this fall can still make late fall or early spring treatment by using either ethylene dichloride or propylene dichloride emulsions, materials which work well in cold soil.

1946 KENTUCKY STATE FAIR FRUIT EXHIBIT

The Kentucky State Fair, August 25-31, was the scene of a high type, very colorful display of fine, fresh, Kentucky fruits that caught and held the eye of the visiting public. The cool weather of August gave unusual deep color; a good growing season furnished good to large-sized fruit and good spraying provided excellent insect and disease control. All in all, Dr. C. S. Waltman, of the Horticultural Department of the University of Kentucky, who served as judge, reported generally the nicest fruit that he had judged in a number of years.

Sections Represented

The apple exhibits were divided about equally from Jefferson and Trimble counties in central Kentucky and from Graves and McCracken counties in western Kentucky. For the first time in years no fruit was exhibited from Henderson county. Peach exhibits came largely from Trimble and McCracken counties. The colorful grape displays were divided between Trimble and Jefferson counties.

Results

In the feature apple exhibit of twenty trays consisting of three or more varieties, first place went to J. W. Fegenbush, Buechel, Ken-

tucky; second place went to Sid Holloway, Mayfield; third place went to H. M. Holloway, Mayfield; and fourth place went to Miller's Orchard, Valley Station.

Individual orchard booth display winners were as follows: First, Joe Bray & Sons, Bedford; second, J. W. Fegenbush, Buechel; third, Miller's Orchard, Valley Station; and fourth, H. M. Holloway, Mayfield.

Sweepstake honors for the best bushel of apples and best tray of apples went to Lester Harris, of Kevil in McCracken county, for the third straight year, on the Golden Delicious variety. Joe Bray & Sons, Bedford, won sweepstake honors on the best basket and best plate of peaches with the Hale variety and on the best plate of grapes with the Niagara variety. Other sweepstake winners were: J. W. Fegenbush, Buechel, on best plate of apples and Fred J. W. Wirth, Louisville, on pears.

Top honors in the general peach and grape exhibit went to Joe Bray & Sons, Bedford. Top pear and plum honors went to Mrs. D. C. Witherspoon, Anchorage.

There was stiff competition in the bushel, tray, and plate classes with premiums divided among the various exhibitors. For the third straight year, Lester Harris, of Kevil in McCracken county, brought up some very high class exhibits and with 24 entries, won 14 blue ribbons, 7 red ribbons and 3 white ribbons, besides the two sweepstakes.

Ross Harris, Paducah, Kentucky, sent up some very fine peaches and, as a first-time exhibitor, made a good start by winning second place in the peach exhibit to Joe Bray and Sons' very outstanding exhibit of Hale peaches. Thomas Jackson, of Parksville, another new exhibitor, made a nice start on apples and pears. It is always interesting to see new exhibitors take their place in the fruit exhibit and to have the older exhibitors back from year to year. All are welcome. There is much good-natured visiting, friendly rivalry, and good comradeship among the fruit growers and their families and friends, as they go about packing their trays, selecting their plate apples or decorating their booths in their efforts to capture the coveted blue and purple ribbons.

Most growers usually return home with the determination to do a better job of spraying and general fruit growing in order to return next year with superior fruit.

FALL MULCHING PAYS IN KENTUCKY

W. D. ARMSTRONG

Strawberry mulching trials have been under way in Kentucky since the Special Horticultural Program started in 1938.

At every harvest except two, 1939 and 1946, fall mulching has given outstanding increases in yield over non-mulched or spring-mulched plots or fields. The work to date has shown that, as an average, fall or early winter-mulching will give an increase of 30 crates per acre over no mulching or spring-mulching at least 3 years out of 4.

The harvest of 1939 was preceded by one of the warmest winters in recent years. Also, the harvest of 1946 was preceded by a somewhat mild winter. **During such open warm** winters strawberry plants in western Kentucky (from Greenville on west and south) are slightly depressed by even a moderate winter-mulch. These mild winters are decidedly the exception, however, rather than the rule. Records and experience show that all of Kentucky can expect temperatures as low as 10° to 20° above zero by Christmas and temperatures that go to zero or below several times during the remainder of the winter. The greatest increase recorded was following the sub-zero weather of 1940. During that period temperatures went to 10° to 15° below zero **with no snow on the ground**, and fall-mulched plots averaged 80 crates per acre more than non-mulched plots. This same contrast held for mulched and non-mulched fields over the district. In addition to heavier yields through winter protection of the plants, that mulch that spreads to the middles also helps prevent soil loss through erosion. The main objection to fall-mulching among growers is the fact that they often get a stand of wheat, cheat or rye over their fields from mulch spread in the fall. This can be largely overcome by proper handling of the material.

Suggestions

Where possible, cleanly threshed straw, free of seeds, should be used. Where chaffy or seed-infested straw is used, the bales should be spread over the fields in October on their sides with one or both wires clipped so as to absorb the fall rains and germinate all seeds before spreading time. Straw used from a stack can also be spread about so as to be wet by the fall rains; or be forked over so that most of the seeds drop out.

Amount to Apply

In the Paducah section tests have shown that 1½ tons of straw per acre gives better results than 2 tons on ordinary years. In the Greenville and Bowling Green section 2 tons should be about right while around Louisville and Covington, 2 to 2½ tons should be about right.

Time to Apply

No set date for mulching can be stated. The plants should be allowed to harden up by fall frosts and light freezes. However, as a rule, the mulch should be on hand and available by late November or early December. By that time the entire state frequently has cold spells with temperatures as low as 10° to 15° above zero. The best suggestion seems to be to spread strawberry mulch in Kentucky when temperatures threaten to go as low as 15° to 20°; for it has been established that considerable damage to the strawberry crown is caused by those temperatures, especially in late November or early December before the plants have become fully hardened.

So, in general, it seems the time to spread strawberry mulch in Kentucky varies from late November on through mid-December, **depending on the weather.**

Very early fall mulching is not advisable because it is desired for the plants to harden off and develop as much as possible before the mulch is applied.

Old, second year fields generally do not benefit from mulch as much as new, first year plantings.

ROTATING APPLE ORCHARD KEEP YOUNG TREES COMING ALONG TO REPLACE OLD ONES

By DR. J. H. GOURLEY, Ohio Experiment Station, in "Wisconsin Horticulture"

Trees grow old. Yet the trees of any given variety are all a part of an original seedling, mutant, or chimera which may have come into existence many years ago. Each one is renewed in vigor by being propagated vegetatively, thrives for a time, and ultimately declines.

Now if a tree grew in an environment free of all hazards, there is no reason why it should decline except from senility. No insects, no disease, no weather injury, no excess or deficiency of water or nutrients—what a Utopia! But fruit trees are not only subject to all of these and more, but also one branch is a competitor of another, they grow too tall, shading effects enter, some branches are enfeebled, fruit becomes small, fails to color properly, costs of care mount, net profits are reduced or lacking. In addition to this not too favorable a picture, the variety itself may have become obsolete or the actual site may prove to be unfavorable.

True, this is not always so; some trees and orchards reach an advanced age and are still profitable but the trend of thinking in America is away from old orchards. Of course, the fine point to decide is when an orchard has received the proper care to keep it young and what we mean by old.

Have Young Trees Coming Along

But I am not particularly arguing for less or more acreage in this paper so much as the desirability of producing part of the fruit from youngish trees, of always having more young trees coming along.

It is indeed difficult to say when apple trees should be removed because they are no longer profitable and any answer that is too arbitrary is bound to be wrong under many conditions. It depends upon the site of the orchard, trees per acre, varieties, size, age and the treatment the trees have received.

It is clear that economical production depends in considerable part upon the yield per acre. Unless an

apple orchard produces, on an average, 200 bushels per acre it is questionable whether the grower is more than breaking even, if that, and 250 bushels would be a safer marginal figure. Many commercial orchards produce less and many more than this figure. It is the general belief, and I think figures will bear it out, that orchards in general produce more than previously.

Best Age of Trees

One orchardist is usually interested in the view of another, and a few such views will be given as obtained from a few successful and experienced men in this field. Space will not permit a complete survey.

Of a group of 140 orchardists in Ohio, 75 per cent considered their orchards produced fruit most economically in the 15 to 25 year period and only 10 per cent in the period extending up to 35 years.

Seven orchardists in Eastern Massachusetts placed the economic optimum as follows: four at 40 years, two at 45 to 50 years and one at 60. For peaches, two placed this age at 12 years, one at 12 to 14 years, and one at 10 years. In that section it depends on variety, amount of X disease present, and amount of winter killing.

One grower in Connecticut believes that we must come to a 40-year life expectancy program for apples, keeping 25 per cent of the area in trees under 10 years of age at all times and preferably half in trees 25 years and under. He comments that youth in humans, animals and fruit trees will always be able to cope with the situation.

A New York grower who has spent most of his 79 years in the apple business finds that he cannot afford not to cut out and replant and has his third set of trees on the same site. He would have to charge more off from his investment by leaving trees in than by cutting them out. When trees are 40 years old he thinks it is time to remove them. The profitable age of an orchard is from 10 to 35 years, and after that profits are doubtful. He would plant 12½ per cent of his charge at a time, keep rotating, develop with his orchard, and avoid serious mistakes.

An Indiana grower would not keep peach trees over 15 years and give them a consistent annual pruning,

"in case of doubt take out more." The cost per bushel of Jonathan apples on his 40-year old trees is nearly double that from 20-year old ones, although the fruit is good.

Other growers would not keep apple trees over 30 years and some even less. But a Yakima orchardist says that "as long as a person can get yield and quality from an orchard he is not justified in removal, and in Yakima and Wenatchee the pulling which has become necessary has been made so either by poor location, poor varieties, poor management, or the grower himself, rather than the trees getting too old."

NEW "1946" PEACH VARIETIES

W. D. ARMSTRONG

The State Experiment Stations working toward development of better peach varieties, as well as the U. S. Department of Agriculture and some other agencies, have made excellent progress that should eventually mean much to the fruit industry and the public in general. Several of these agencies decided in 1946 that some of their selections have enough merit to be named and introduced for public trial. In the following account this year's introductions from New Jersey, Michigan, Illinois, and the U. S. Department of Agriculture are described.

Four new varieties are listed by the New Jersey Experiment Station—Early East, Jerseyland, Redcrest, and Laterose. This experiment station has done outstanding work in developing new peaches over a period of years. Many of its earlier introductions such as Raritan Rose, Golden Jubilee, Triogem, Sunhigh, Goldeneast, Summercrest, White Hale, and Afterglow are now standard varieties in the east and some are also doing nicely in Kentucky and the mid-west.

The Michigan Experiment Station, through its peach breeding program at the South Haven Experiment Station, has now named and introduced the Fairhaven variety. The Michigan work has already meant much to the Kentucky and national peach picture by developing the now famous Halehaven variety. Other varieties originating there are the Kalhaven and, more recently, the popular Redhaven.

The U. S. Department of Agriculture, through its peach breeding work at Beltsville, Maryland and Fort Valley, Georgia, has just named and released the Southland. In 1945 they also released two new varieties, Dixired and Dixigem, that are expected to help fill the need for better early peaches.

The Illinois Experiment Station has released seven new varieties as the first fruits of their large peach breeding program, and more can be expected before long. Many of these selections have been tested in the mid-west and here in Kentucky. The new Illinois varieties are: Prairie Daybreak (K69), Prairie Dawn (K73), Prairie Sunrise (K74), Prairie Rose (K80), Prairie Schooner (K40), Prairie Clipper (K47) and Prairie Rambler (K43).

Below we give a description, as furnished by the originators, of each 1946 variety listed above:

MICHIGAN VARIETY

Fairhaven (South Haven 25)—Yellow-fleshed freestone of high quality and firm flesh that ripens about 2 days after Golden Jubilee starts to ripen. It is probably as hardy as Halehaven. Trees bear early. Fruit has something of the Elberta shape and will ship well.

U.S.D.A. VARIETY

Southland (F.V. 4-155)—Yellow-fleshed, firm freestone of large size, ripening with Halehaven. This peach, as its name indicates, is of special interest in southern states. Because of its low chilling requirement it can be grown further south than such varieties as Elberta and Halehaven.

NEW JERSEY VARIETIES

Early East (N. J. 134)—Large, yellow, high quality, ripening about 10 days ahead of Golden Jubilee. Colors before ripening and hangs well. Productive; dormant fruit buds hardier than Elberta; tree-ripened fruits have been freestone. A promising early kind for home or commercial orchard.

Jerseyland (N. J. 135)—Large, firm, attractive, productive, early-bearing, yellow freestone, ripening a few days before Golden Jubilee. Fruit resembles J. H. Hale, hangs well, and is far superior to Golden Jubilee as a shipping peach. The tree is hardy, sets buds freely, and

comes into bearing early. A very promising early commercial sort.

Redcrest (N. J. 126)—Large, firm, yellow freestone, vigorous grower, productive, ripening just before Elberta or about with Georgia Belle. Fruit excellent for freezing and canning. Better color and a real competitor for Summercrest, another New Jersey variety of the same season.

Laterose (N. J. 109)—Large, firm, white freestone of high quality that ripens just after Elberta and White Hale and with Afterglow, another good yellow freestone from New Jersey.

ILLINOIS VARIETIES

Prairie Daybreak (K69)—(Halehaven X Sun-Glo) Large, yellow freestone, quality good to very good, flesh moderately firm. Ripens about 5 weeks ahead of Elberta, or about 1 week after Red Bird. Tree is vigorous and bud-hardiness is about the same as Elberta.

Prairie Dawn (K73)—(Valiant X Halehaven) Very bud-hardy, vigorous, and productive, rating in bud-hardiness with the hardiest white varieties in the test plot. Fruit is yellow-fleshed, high quality, highly colored, moderately firm, does not discolor when exposed to the air in processing, and is only partly freestone. Ripening begins with Prairie Daybreak and lingers a few days after that variety. Is expected to be popular because of hardiness, high quality, and appearance.

Prairie Sunrise (K74)—(Valiant X Halehaven) Yellow freestone when fully ripe, of very good quality, and moderately firm. Fruit very similar to Prairie Dawn, ripening 3 to 5 days after Prairie Dawn. Bud-hardiness rated between Elberta and Halehaven. Tree vigorous and very productive.

Prairie Rose (K80)—(Gage X Halehaven) Yellow freestone, medium size, round and well colored. Flesh firm and of fine texture, ripening 3 days to a week before Halehaven. Bud-hardiness about the same as Elberta. Tree productive and moderately vigorous. Should be a good commercial shipping peach.

Prairie Schooner (K40)—(Elberta X South Haven) Large, yellow freestone of bright color, ripening 4 or 5 days before Halehaven some seasons and with it in others. Bud-hard-

iness about the same as Halehaven. One of the best varieties tested for freezing.

Prairie Clipper (K47)—(J. H. Hale X Gage) Large, round, yellow, firm-fleshed, well-colored freestone, ripening normally a bit ahead of or with Elberta. Tree vigorous and productive; bud-hardiness about the same as Elberta. Should assume a part of the commercial role formerly held by J. H. Hale.

Prairie Rambler (K43)—(Elberta X Gage) Large, round, high quality, highly colored, yellow freestone, with firm flesh. Tree vigorous and productive, and somewhat hardier than Elberta or J. H. Hale. Ripens 3 to 5 days after Elberta. Selected to extend the Elberta season.

Promising New Varieties

Dixired—Very early, yellow clingstone that ripens just before Red Bird. Being planted and tried extensively in the south as an early shipping peach of better quality than the old Uneda and Red Bird. Must be thinned early and heavily to develop good size. (Introduced 1945.)

Dixigem—Yellow freestone of medium to good size that ripens just ahead of Golden Jubilee or with Redhaven and Fisher. Being planted heavily in South Georgia as an early shipping peach. Flesh non-browning, among the very best for quick-freezing. (Introduced 1945.)

Redhaven—Yellow, very firm-fleshed freestone, giving promise of being a useful variety. Ripens just before or with Golden Jubilee. Because of heavy bearing and early ripening, must be thinned early and heavily to develop good size. Non-browning flesh; excellent for freezing and canning. (Introduced 1942.)

Regular and Cooperative Variety Testing

The Kentucky Experiment Station already has a number of these varieties under test at Lexington, Quicksand, or Princeton. Others will be planted this fall or spring. Through the cooperative variety testing project of the Special Horticultural Program, a number of trees of all important new varieties have been placed with cooperators in every peach section of the state and others will be distributed this fall and as worthy new ones become available. This project assures quick

state-wide testing of new sorts under commercial conditions and enables us to get a prompt state-wide reaction to good qualities and shortcomings of the many new varieties. Variety reports will appear in this publication from time to time. This is considered an important part of the work because of the wide interest of all growers of all fruits in new varieties.

SEEDLING APPLE EXHIBIT

The first strictly seedling apple exhibit was held in connection with the fruit exhibit at the Fall Festival of the Robinson Experiment Substation at Quicksand, on September 26 and 27 in connection with the Special Horticultural Program of the Kentucky Agricultural Experiment Station. The results will be reported in the next issue of Kentucky Fruit Notes.

The purpose of offering premiums in this class is to attempt to locate seedling apples of local Eastern Kentucky origin that are worthy of propagation and growing in that area. Many good apples of seedling and local origin are known to exist, and it is hoped that some outstanding sorts will be located. It is hoped to make this seedling exhibit an annual affair.

HINTS AND OBSERVATIONS

W. W. MAGILL

Variety Dope

The harvesting results on the strawberry variety experiment at our Western Kentucky Substation for 1946 were as follows, according to W. D. Armstrong, who had charge of the experiment:

Variety	Crates per acre	Softs and rots
Aroma	70	19%
Blakemore	110	17%
Tennessee Shipper (148) ..	157	11%
Tennessee Beauty (263) ..	179	8%

These yields were obtained in spite of spring frosts and rains at harvest.

Not Crabgrass

Leonard Overby and Son, Mayfield, Ky., harvested and sold over 200 crates of U. S. No. 1 Tennessee Beauty (263) strawberries from

three-fourths acre, second-year patch.

The Tennessee Shipper strawberry outyielded Premier in the Louisville area in 1946 in spite of spring frosts and a rainy harvest season.

Think It Over

In 1945 I asked a good many experienced apple growers of Kentucky what varieties they would plant, and in what percentages, if they were planting a new apple orchard. Less than 10 percent said they would plant Red Delicious, Starking, or Winesap.

1946 was a bumper crop year for these three varieties. To my way of thinking, 20 years of history is a more valuable guide than one unusual year.

Be Different

When everyone else is planting peaches, it might be a good idea to think about planting some apples.

A Warning

Plant a new apple orchard **now**, rather than wait 10 years and cuss yourself for your neglect.

IMPORTANT! ANNUAL MEETING

On December 19, 1946 at Mayfield, Kentucky, the Kentucky State Horticultural Society will hold its annual meeting with the College of Agriculture and Home Economics cooperating. President Herman Yopp of Paducah will be in charge and will be assisted by Vice-Presidents D. W. Doran of Mayfield, J. W. Fegenbush of Louisville, Wendell VanHoose of Paintsville and Secretary-Treasurer W. W. Magill of Lexington.

This will be a meeting that any active fruit grower can hardly afford to miss. Prof. L. F. Steiner will discuss codling moth control experiments with DDT and the complications that arise from this material. It has been proven that we can control codling moth with DDT but the fact that its use destroys certain parasites and allows such pests as red spiders, red mites and leaf roll-

ers to increase to damaging numbers is an important problem that has to be faced squarely. Dr. R. H. Daines, Plant Pathologist of New Jersey, will discuss the all important problem of preventing arsenical injury to peach and apple foliage and the control of certain apple and peach diseases. Dr. P. O. Ritcher, our Entomologist, will discuss peach insect control and the 1946 work in Kentucky. Dr. C. E. Baker of Purdue University will discuss the construction and use of home and commercial apple storage houses. W. D. Armstrong will discuss the Special Horticultural Program that has been in effect the last several seasons. The program will run through morning, afternoon and night sessions with a round table discussion of varieties, fertilization and pruning practices lead by Mr. Magill to be one of the features of the night session.

It is strongly urged that growers in all sections of the state make plans to form in groups and attend this meeting and to inspect some of the orchards in the district and along their routes.

ORCHARD MOUSE NOTICE

Orchard men are advised that the orchard mouse population seems to be on the increase throughout the mid-west and large numbers of these pests have been seen recently in some central and western Kentucky orchards. Serious damage to young and old trees can occur quickly if growers neglect to take control measures. Each apple and peach orchard should be inspected each fall for surface and underground runways and poison bait should be applied where mice are found. Specific instructions for poisoning can be had by writing to the Kentucky College of Agriculture, Experiment Station, Lexington, Kentucky, or to Mr. L. C. Whitehead, Division of Predator and Rodent Control, U. S. Dept. of Interior, North Carolina State College, Raleigh, North Carolina.