

KENTUCKY FRUIT NOTES

W. D. Armstrong, Horticulturist, Editor

WHAT VARIETY WILL YOU PLANT?

The Horticultural Department of the Kentucky Experiment Station is conducting extensive variety trials at Lexington and Princeton, with apples, peaches, strawberries, grapes and, to a less extent, with plums, pears, raspberries, and blackberries. The results of these trials are for the information of Kentuckians who are in need of this material and will be gladly furnished on request. If the results of these trials are used or consulted by those planning to set fruit trees, vines, or berry plants, much time and money can be saved.

Many nurseries give such glowing descriptions of any and all varieties that their catalogs are of little real help in selecting varieties to plant. Many varieties are not suitable for planting in Kentucky and some are failures, generally. Also, remember that over-sized trees transplant with difficulty and few survive, and that most commercial orchardists prefer young, medium-sized trees.

STRAWBERRY MULCH

Cooperative mulching tests made with commercial strawberry growers and started in 1938 indicate that 3 out of 4 years fall mulching of strawberries will pay a handsome profit over spring mulching. For the 9-year period, fall mulching has produced an average of 30 crates per acre more than spring mulching. The greatest increase was 80 crates per acre, in the spring of 1940, following a period when temperatures went to 10° and 12° below zero with no snow on the ground. As a result of that cold period, many non-mulched plants were killed or the crown and roots were so badly injured that very low production resulted. In February and early March of 1947 the

near-zero temperatures resulted in much crown and root injury to non-mulched strawberries over the entire state.

SUGGESTIONS: In order to prevent infesting the fields with rye, wheat, or cheat, it is suggested that the baled straw be taken to the patch in October or early November and the wires clipped so that the straw will soak up the fall rains and germinate any grain before spreading. This straw is then ready to spread in late November or early December when it seems that the temperature will go down to 15° to 20°. These dates vary and may be later in southern Kentucky and earlier in the northern portion. One and one half tons of straw per acre seem about right for the Purchase Area, with about 2 tons around Henderson, Greenville, and Bowling Green, and from 2 to 2½ tons per acre around Louisville and Covington.

ORCHARD MICE PLENTIFUL

Most Kentucky orchardists are familiar with orchard mice and the damage they can cause to fruit plantings. Those who are not familiar with these pests would do well to study the habits and customs of these mice. Even experienced orchardists often become careless and fail to take proper precautions to prevent serious injury to some of their valuable trees. Such was the experience of an excellent grower near Henderson during the winter of 1945-'46. An early January examination revealed that mice had girdled or seriously injured about 100 apple trees 3 to 5 years old. Applications of both zinc phosphide on apple cubes and poison grain strychnine bait quickly stopped further injury but it did not, of course, repair the damage done to the trees.

A recent examination of a large apple orchard near Paducah show-

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ed that it was full of meadow mice and their small runways were everywhere. This grower has had some mouse injury in the past and can expect more if he does not cut down his mouse population. Examinations should be made by growers regularly each fall, and, if mice are found, poison bait should be applied.

WHERE TO LOOK FOR ORCHARD MICE

While orchard mice are usually associated with injury in apple orchards, they also often cause serious injury to peach trees and other fruit plantings. They seem to consider Golden Delicious, Grimes Golden, Polly Eades and other yellow varieties among their favorite foods, but they seldom damage Ben Davis trees.

Orchard mice are generally of two types—the meadow mouse and the pine mouse. The meadow mouse is usually a surface feeder and has runways on the surface of the ground, while the pine mouse largely constructs underground runways and tunnels. Each of these, however, does some work both on the surface and in tunnels.

To locate the surface runways, part the mulch grass, weeds and growth over the orchard floor between and beneath the trees. The runways are, of course, very small, being about as wide as two fingers, and are branched and rebranched and often lead to small holes in the ground or to nesting mounds. One can easily determine whether or not the runways are being used by the presence or absence of fresh mouse droppings. Also, runways or tunnels beneath the surface can be located by looking for the tell-tale surface **breather** openings as well as probing into the soil about the trees with a sharp stick. If the stick suddenly drops an inch or so after being pushed through the top 1-3 inches of soil it indicates a runway has been penetrated.

POISON MICE EVERY FALL!

The following is quoted from a recent article by G. C. Oderkirk of the U. S. Department of Interior appearing in King Apple and Queen Peach of Illinois under the title "Poison Mice Every Fall":

"How to make the bait. Select small ripe apples. Cut each apple in half and then slice each half into

four equal pieces. Do not peel or core. Place three to five quarts of the cut bait in a clean, dry metal pail or can. Measure one **level teaspoon** of zinc phosphide rodenticide for each quart of cut bait. Dust over the sliced apples and stir until the bait is uniformly coated with the poison. It is then ready to use. One quart of bait will treat from one-third to one acre of orchard, depending upon the degree of infestation. **Prepare fresh bait daily.**

"How to place the bait. Bait placement should be **systematic** and **thorough**. Use an ice pick or pointed stiff wire to place the bait and to locate the runways. Mice require protective cover and seldom leave their trails under matted grass or other cover and venture into the open. For this reason bait containers of tile, glass, metal, or wood are no longer recommended. Bait should be placed only in runways. As a general rule, place the bait about 10 feet apart. If runways are beneath the drip area of trees, two to four placements in the area should suffice. One apple slice at each baiting spot is sufficient. Place grass lightly over the bait. Bait any holes which are found, as well as mole runways. Bait mole runways from the side instead of from the top to avoid collapsing the runway. If mulch is used, raise it, place the bait in the runways beneath, and let it down again.

"Time to bait. The best time to bait an orchard is after harvest, when cool weather has caused mice to complete their migration. This time will vary from mid-October through November. Mice are most active from late forenoon until mid-afternoon; hence baiting in the forenoon is preferable. Do not bait on windy, rainy, or extremely cold days.

"Precautions. (1) Entrust the preparation of bait only to responsible persons. (2) Wash the hands and all utensils after mixing the bait, and at the end of the day wash all utensils in which bait was handled in the orchard. (3) **Do not handle bait with bare hands.** (4) Use only rodenticide taken from air-tight containers, as it loses its potency.

"Strychnine-coated oats, wheat, or rolled oats bait may also be used. Place heaping teaspoonfuls at one or two points in runways between each tree and at two to four points

within the drip area of each tree. If runways are scarce, one or two bait placings beneath each tree will suffice. Placing two kinds of bait to give mice a choice is worth the added trouble.

"No one can fortell with accuracy the infestation that may occur in orchards this winter. Mice increase rapidly. It is therefore advisable to make mouse control a regular practice, baiting the orchard thoroughly and at the proper time each fall. This is the sure way to avoid mouse injury.

"The last week in October is the best time to bait the orchard but, if work interferes, bait early in November."

Growers should re-check their orchards from time to time during the winter and put out more poison, if conditions warrant the treatment. In order to reduce mouse injury to trees of all ages and especially to young trees, it is helpful to rake all mulch material back about two feet from the trunk of each tree. Also, grass and weeds growing up close to the trunks should be removed, since these, as well as mulch material close to tree trunks, furnish ideal protection for mice to hide under while injuring the trees. This practice pays whether poisoning is done or not. It also enables growers to locate any injury because the trunks can be seen.

Kentucky growers should contact their regular dealer for rodenticides. If he does not stock zinc phosphide rodenticide, order direct from Mr. L. C. Whitehead, Division of Predator and Rodent Control, North Carolina State College, Raleigh, N. C. Strychnine-treated oats bait may also be secured at this address. A few rush orders can usually be filled by the College of Agriculture, Lexington, Kentucky.

RABBIT INJURY

Let's not forget the serious above-ground damage often caused to fruit trees by rabbits. The common custom is to place a sleeve of hardware cloth or small poultry wire about the trunk of each small tree. A wrapping of newspaper, brown wrapping paper, black construction paper (non creosote), or thin wood veneer strips are often used. Also, in recent years certain preparations have been developed that can be home-made and painted on the trunks. One such mixture is the

alcohol-resin paint. Instructions on mixing and use will be forwarded upon request.

1947 FRUIT SIDELIGHTS

Peach thinning. The drouth in western Kentucky in combination with a heavy peach crop caused many small-sized peaches and a number of broken limbs. This was a season that paid high dividends for good fruit thinning and pruning. Where trees had been well-thinned, most of the fruit sized well in spite of the drouth and heavy load. The larger growers in Kentucky again used, to good advantage, the hose or hose-and-pole methods of thinning. With these systems, the excess peaches are tapped or rubbed off by use of a rubber hose twelve to fifteen inches long or by some other insulated device on the end of small poles, usually four to seven feet long. This system is fully ten times faster than the old hand thinning method and has been used successfully now for three years in many Kentucky orchards. The 1947 experiences again brought out the well-known fact that it is necessary to go over the trees twice, about 2 weeks apart, to get the peaches thin enough.

Peach pruning. It is well-known that pruning of mature peach trees is an important means of thinning the crop, as well as keeping the trees within bounds and promoting vigorous growth. In many orchards where pruning had not shortened the limbs, much breakage resulted from the heavy fruit load being too far out on the limbs.

Peach insects. The plum curculio made one of its heaviest attacks on Kentucky peaches in the early spring of 1947. In spite of this, most Kentucky growers managed to have very good control at harvest time, after a heavy spray or dust schedule or a combination of the two. In most Kentucky peach orchards the fruit count at harvest time showed more injury by the oriental fruit moth than by curculio. This indicates that Kentucky peach growers will likely use more DDT for the control of oriental fruit moth than in 1947 and will, thereby, create a red mite and red spider condition that will have to be solved later, also.

Benzene hexachloride looked fairly promising in 1947 tests for cur-

culio control; however, heavy applications repeated at short intervals were needed and this makes its use expensive.

Hexaethyl tetraphosphate gave good results in controlling red spiders and red mites on apples and should do the same on peaches, if needed. This material was also used by some growers in several states in their attempt to stop the severe curculio attack. At one-half pint per 100 gallons, curculio control was not good. At three-fourths to one pint per 100 gallons, control was good but serious leaf injury also occurred and some injury was also caused to the cylinders of spray machines. This showed that the material was not out of the experimental stage and not by any means ready for general use for peaches.

Peach tree borer. This is one of our worst peach tree pests. Peach growers who did not get to apply PDB (paradichlorobenzene) to their peach trees in September or October can still treat them later this fall or early winter by use of ethylene dichloride emulsion. This liquid material is effective at lower temperatures than is PDB, is effective in late fall and early spring and should be applied strictly according to directions. Propylene dichloride is a newer liquid material for borer control and is used at dosages half as strong as ethylene dichloride and is also effective both in late fall and early spring.

Codling moth injury to apples was generally more severe this year than in 1946 because of the hot summer. Many western Kentucky apple men used a DDT spray schedule in 1947 with fairly good results. However, many of them waited too long between sprays, especially in late summer and many worms entered the fruit. This condition gave further evidence to the fact that, with fall and winter varieties on a "worm year," western Kentucky growers need to keep up spray protection virtually to harvest, regardless of the spray program used.

Red banded leaf roller injury was rather severe in several apple orchards at Paducah in 1947. This pest is another one that is encouraged by the use of DDT and injures the fruit by making surface feeding grooves and trails just through the skin of the apples, thus making a cull and inviting rot. In the early season the young worms

feed in the leaves at the ends of twigs. Where this pest is serious, arsenate of lead should be included in the pre-pink and pink sprays before bloom and in the early cover sprays. We will likely be hearing much more of this pest.

Apple picking. One of the new, very light, magnesium metal apple picking ladders was recently tried by the editor with complete satisfaction. The eighteen foot ladder is so light there is scarcely any "chore" attached to carrying it and its strength and ease of handling are outstanding. The first cost is considered somewhat high but it is rust-proof and should last for years. Any grower with mature trees should be **sold** on this light ladder after a few hours of use.

The dormant spray. Since the general use of DDT by western Kentucky apple growers has increased the trouble from Rosy Aphids and brought on the red mite problem, the dormant spray is more important than ever. The regular 3% dormant oil emulsion spray will kill all of the red mite eggs that are hit, as well as control the San Jose scale. When a small amount of **dinitro** material is added to this regular oil emulsion or an oil is used that contains dinitro, the eggs of the rosy aphid and other aphid eggs are also killed. A combined dormant spray against the several pests should be a **must** on every apple grower's spray program.

1947 STRAWBERRY VARIETY BEHAVIOR

The cool, moist weather that prevailed during most of the strawberry harvest encouraged heavy production and, as a result, many fields over Kentucky and some experimental plots made yields much heavier than ordinary. Also, in many cases, second and third year patches produced more fruit than first year fields near by; however this was not the case in the Experiment Station plots.

In western Kentucky, Blakemore is, by far, the most important variety. There are still some Aromas grown there, but this variety has been losing favor rapidly in recent years, as a result of poor yields and poor carrying quality. Tennessee Beauty is rapidly taking the place of Aroma as a late berry and this

new variety is gaining many new friends each year. Tennessee Shipper is also grown to some extent but it has not gained as much popularity in the Paducah section as it has further north at Greenville, Louisville, and around Covington in northern Kentucky.

Around Louisville and northern Kentucky Premier has been the main variety with some Blakemore. Here again in these sections both Tennessee Shipper and Tennessee Beauty are performing in excellent fashion and they appear to be in line for considerable expansion. Both varieties are still on trial, but in most Kentucky locations they have given outstanding results, especially the Tennessee Beauty, which is one of the heaviest fruiting varieties seen recently.

EXPERIMENT STATION RESULTS

The variety trials at the Western Kentucky Experiment Substation at Princeton gave probably the highest yields in 1947 that have been recorded there. The size and quality were excellent. Below, the 1946 and 1947 yields are given for comparison:

1946 and 1947 Strawberry Yields in Crates (24 Quart) per Acre at Western Kentucky Experiment Substation, Princeton, Kentucky

Year	Crop Year	Blakemore	Tennessee Shipper	Aroma	Tennessee Beauty
1947.....	1st Year Plots.....	353	383	207	367
1947.....	2nd Year Plots.....	134	146	123	193
1946.....	1st Year Plots.....	118	157	70	180

From these yields, it can be seen that both Tennessee Beauty and Tennessee Shipper were ahead of Blakemore and that all three varieties were considerably ahead of Aroma.

1947 KENTUCKY STATE FAIR FRUIT EXHIBIT

The Kentucky State Fair, September 7-13, held at the State Fair Grounds, Louisville, was again the scene of a high-type, colorful exhibit of Kentucky grown fruits. Excellent cooperation was had from the fair management. Dr. C. S. Waltman of the Horticultural Department, University of Kentucky, again served as judge. W. D. Armstrong was Superintendent of the Department.

Sections represented: Large apple exhibits were shown by growers from Graves, McCracken, Jefferson, and Trimble counties. The peach and grape exhibits were largely from Trimble and Jefferson counties, with pear exhibits from Jefferson and Boyle counties. Colorful, individual orchard booth displays were entered from Graves and Jefferson counties.

Results: In the feature apple exhibit of 20 trays, consisting of three or more varieties, first place went to the Lester Harris Orchard of Kevil, in McCracken county; second place went to Joe Bray & Sons of Bedford, in Trimble county; third place went to Miller Orchards, Valley Station, in Jefferson county; and fourth place to Thos. A. Hamilton, Jr., of Mayfield, in Graves county.

In the orchard booth display, winners were as follows: first, Thos. A. Hamilton, Jr., Mayfield; second, Miller Orchard, Valley Station; third, Wm. Fegenbush Orchard, Buechel, Kentucky, in Jefferson county. Sweepstake honors for the best bushel of apples went to Lester

Harris of Kevil, for the fourth straight year. This orchard also won the sweepstake honors for the best tray and plate of apples, all on the Golden Delicious variety. Winnings in the bushel, tray, and plate classes were fairly well scattered among the exhibitors with the Harris Orchard taking a high percentage of the blue ribbons. Joe Bray & Sons, Bedford, won sweepstake honors on the best basket and best plate of peaches and on the best plate of grapes. The Miller Orchard, Valley Station, won sweepstake honors on the best plate of pears. Top honors in the peach exhibit went to Joe Bray & Sons, Bedford, with the winnings in the grape division being divided chiefly between the Bray Orchard of Bedford and Wm. Fegenbush of Buechel.

The fruit exhibit this year was featured by fruit of very high quality in all divisions and was fully up to standard in the apple, peach, and grape sections but entries of plums, pears, pawpaws, hickory nuts, walnuts, and pecans were somewhat light. A feature of the 1947 exhibit was a display of common fruit insect and disease injuries which enabled the general public to identify the types of fruit injury occurring at home.

As conditions return more nearly to normal, following the war, it is anticipated that the fruit exhibit will expand materially in all classes. The Fair Board is cooperating with all departments in order to improve exhibiting conditions and fruit growers in all sections of the state are urged to take advantage of the opportunity to display their fruits in competition with the other fruit growers. Much can be learned by the comparison of fruit from one section with that from other sections of the state. A suggestion to those planning to exhibit for the first time is to carefully pick their most perfect fruits with the stems and carefully pack for transportation. To make attractive exhibits, fruit should be free of blemishes, of average size and color for the variety, and as uniform as possible in size, shape and color.

NEW TERRACED PEACH ORCHARDS

During the summer and early fall of 1946, rolling orchard sites were terraced on the fruit farms of Frank Street, Henderson, and Roy Hoewischer, Paducah. The terrace lines were surveyed and staked off by engineers who also helped supervise construction of the terraces. During the early spring these two sites were planted with peach trees located on top of the terraces. These trees have now made their first season's growth. The soil Conservation Service and College of Agriculture aided in determining proper tree locations.

Some earlier orchard terracing in Graves county had the terraces too level, with too few outlets. As a result, drainage was very slow, some soil water-logged and some trees were injured thereby. In lay-

ing out the new terraces in Henderson and McCracken counties, the engineers took these earlier experiences into consideration and supplied a greater fall to the terraces as well as more frequent outlets to speed up water run-off.

Those interested in terracing orchard sites and setting terraced orchards might do well to visit and inspect these two new plantings.

THE CENTENNIAL FRUIT CONGRESS

The American Pomological Society

The American Pomological Society will celebrate the 100th anniversary of its organization with the Centennial Fruit Congress at St. Louis, Missouri on February 17, 18, and 19, 1948, at the Jefferson Hotel. The American Pomological Society is the oldest national agricultural organization in the United States and is devoted to the development of the national fruit industry. The State Horticultural Societies of Illinois and Missouri will sponsor the meeting with other affiliated state societies cooperating. The National Apple Institute and National Peach Council will likely meet in connection with the centennial program. An outstanding program is being planned that will be of national interest and there will also be a large group of commercial and educational exhibits. A large attendance of fruit growers and national fruit authorities from over the entire United States is anticipated.

Professor Stanley Johnston of the Michigan Experiment Station is President of the APS, and W. D. Armstrong of the Kentucky Experiment Station is Secretary-Treasurer. George B. Leonard of Louisville and Frank T. Street of Henderson are on the Executive Committee.

QUARTERLY PUBLICATION

The American Pomological Society now has a fine quarterly publication in the "Fruit Varieties and Horticultural Digest" magazine. Up-to-date variety information is furnished as well as many other items of horticultural interest. This magazine goes free to all American Pomological Society members and can be subscribed to by others. Correspondence regarding this magazine

should be addressed to Wesley P. Judkins, Experiment Station, Wooster, Ohio.

BITTER-ROT OF APPLES

Bitter-rot of apples again caused serious loss in several Kentucky orchards in widely separated sections in 1947. Too many growers who have had losses from this disease in former years wait until they see the first diseased spots on the fruits before starting special bitter-rot sprays. It has been proven, time after time, that in a bad bitter-rot year the disease cannot be checked after it has developed far enough to cause visible spots on the fruit. The incubation period of this disease is rather long; hence, by the time spots are visible many other infections have started and sprays are powerless to stop them, since sprays can be expected only to prevent infections and not to stop infections that have already started.

For this reason, where bitter-rot has been serious, special bordeaux mixture sprays of 4-6-100 or 8-10-100 strength should start in the second or third cover spray. This would be late May in southwestern and southeastern Kentucky and early June in central, northern, and northeastern Kentucky.

Several new materials are showing some promise in bitter-rot control; however, nothing to date is showing a general improvement over fresh bordeaux mixture made up in the spray tank by use of fresh copper sulfate (bluestone), fresh hydrated lime, and water. Either or both arsenate of lead and DDT can be combined with bordeaux mixture to form a combination codling moth and bitter-rot spray. However, bordeaux mixture should not be used with a nicotine spray schedule because it releases the nicotine fumes.

At the Indiana Experimental farm at Bedford, Indiana, bitter-rot has been controlled for the last several years on the Maiden Blush variety by three or four very early sprays starting with the second cover, consisting of weak bordeaux of 2-6-100 strength combined with $\frac{1}{2}$ gallon of summer oil and 4 pounds of arsenate of lead. This is based on the theory of preventing even the

earliest infections and, thereby, furnishing protection. With this program, the disease has been virtually eliminated in a planting that suffered serious losses before this program started.

Often the first bitter-rot to appear each year occurs in one certain tree and the disease spreads from there. The removal of such trees has, in several cases, completely solved the bitter-rot problem.

RED STELE

A Serious Strawberry Disease

BY W. D. ARMSTRONG

The Red Stele root rot disease has long been a serious problem in the strawberry producing sections of Illinois, New Jersey, and a number of other states. Kentucky growers have been very fortunate in that losses from this disease have been relatively light, to date. The writer first saw the disease in an Aroma patch near Paducah in the spring of 1939. Another strawberry crop was planted on this same field in 1944 and was again virtually ruined by red stele in 1945. It was seen in a few other berry fields in the Paducah section and at Lexington in 1947 and it is suspected to be spread more generally than is realized.

The disease is caused by a fungus that thrives in poorly drained soils and causes most injury in cool, wet seasons. The disease is often carried to the new field on the roots of the newly set plants and can be spread by surface water run-off, as well as by cultivation tools that have been used in diseased spots. If set in high, well-drained soil, infected plants may develop healthy runner plants and grow into a productive field. However, if the soil is low, poorly drained or of a tight, wet nature or if a wet, cool spring follows, the new patch may grow nicely the first season and then go to pieces early the following spring. This condition prevailed in a three-acre field of Blakemores in the Paducah-Kevil section in 1947 and the entire crop was lost except on a high ridge down the center of the field.

The trouble usually becomes noticeable just before harvest. The symptoms are low, small, light foliage that often wilts as the berries

try to ripen. These symptoms usually occur first in the lower parts of fields, in little draws, dips or depressions. Most of the foliage scorches on seriously infected plants and the berries do not mature or are seedy and of very low quality. Most of the infected plants continue to lose vigor and die out. The disease can be identified easiest by carefully digging suspected plants and splitting the roots lengthwise. In diseased plants the central core (or stele) of the roots is a dark red or copper color. This corresponds to the appearance of the lead in a pencil split lengthwise.

Control measures. At present the best control seems to be to avoid the disease, if possible. This can be done, to a large extent by setting only clean plants that have come from inspected fields. Use higher, well-drained soil as far as possible, especially after the disease has become established on the farm. Setting berry plants on small ridges has proven helpful in infected areas. Lay out the berry rows so as to encourage good surface water drainage but, of course, still attempt to reduce erosion. Keep new settings of berries out of infected fields for at least five years, since the disease remains in the soil for an unknown length of time. The use of resistant varieties would be an ideal control measure; however, to date, we know of no satisfactory shipping berry that is resistant to the trouble. The United States Department of Agriculture and several state experiment stations are attempting to breed new varieties that are resistant. The Temple variety seems fairly resistant to red stele and is doing nicely in several infected areas in other states but little is known, to date, of its behavior in Kentucky. Where tried, Temple seems to be satisfactory for local markets and processing but too soft for a dependable shipping variety. Much testing of resistant seedlings and new sorts is scheduled for Kentucky the coming season, as well as possibly some breeding work.

The presence of this disease in a section (as it is known to be started around Paducah) makes it more important than ever to use only inspected plants for setting. Several growers are known to have brought

the disease onto their farms by digging plants from a neighbor's infected field. It will take the cooperation of all growers in a section to keep this disease from seriously crippling the industry. This is especially true in sections of western Kentucky and elsewhere where much of the soil devoted to strawberry growing is rather tight and poorly drained.

HINTS AND OBSERVATIONS

BY W. W. MAGILL

If you failed to control apple scab on your fruit or foliage this year, don't be discouraged. Remember, we had almost perfect scab weather through late May and all of June, six weeks after the scab season of normal years.

PEACH BROWN ROT

Attention—Farm orchard and back yard peach growers! Did you lose most of your peach crop from brown rot near peach harvest? I am of the opinion you did. Remember, we had very hot weather (90 to 100 degrees, day and night) together with a very high humidity through late July and August. Some of our commercial growers found it necessary to apply from 4 to 6 sulphur sprays or dusts during the 20 days just ahead of harvest to save their crop from rot.

SAFE, RATHER THAN SORRY

Buy your 1948 nitrogen fertilizer now or the first date you can find some available. From all reports it will be scarce and hard to get in 1948.

TROUBLE AGAIN

Too many Kentucky apple growers found girdled trees the first day they looked for the presence of orchard mice last winter. A fall application of poison is more profitable than injured trees.

A BARGAIN

Are you a regular subscriber to any fruit journal? If you got only one "idea" from it during the next twelve months, you would certainly be ahead.