

PACKING HELPS FOR PEARS AND STORAGE ILLS

(Continued from Page One)

is accompanied by an accumulation of the substance known as acetaldehyde.

As already indicated, scald in pears occurs chiefly in fruit that has been held in cold storage past its normal life. In reality, it is an old-age disease of pears. In this connection, however, it must be remembered that old age in pears is not entirely a matter of periods of time. Pears that are abused at harvest time or that are shipped under unfavorable temperature conditions may reach old age and may scald weeks or months ahead of pears that have been properly handled.

Anjou Scald

The particular trouble described here as Anjou scald was first noted by the author in 1925. Since that time, commercial and experimental lots of Anjou pears have frequently developed the disease, especially when the fruit has been held for several months in cold storage. Usually it is found in fruit held after February 1. It does not occur in fruit that is ripened shortly after picking.

The trouble, as a rule, does not appear while the fruit is at low temperatures, but develops very quickly when the fruit is removed to a warm situation. This is especially true when removal to high temperatures is accompanied by removal of the wraps. It is not uncommon for Anjou pears to be completely scalded within 24 hours following this treatment.

Although the fact is not entirely established, it appears that Anjou scald and common pear scald are distinct troubles. Common pear scald, as already indicated, results in discoloration and sloughing of the skin. A foul odor is usually present and the fruit becomes practically inedible. Anjou scald, on the other hand, results in brownish or dark discoloration, which detracts materially from the appearance of the fruit, but this is not accompanied by sloughing of the skin, nor is it accompanied by odor or impaired eating quality. In this respect, it is similar to apple scald.

While Anjou scald has been confined largely to Anjou pears from the Rogue River valley, it has appeared at times in fruit from the Hood River valley and elsewhere.

Early observations on Anjou scald show that the trouble occurs under a wide range of conditions. In most years, it has occurred in both washed and unwashed fruit. It has occurred in pre-cooled fruit and also in fruit not pre-cooled. It has occurred in fruit held constantly at 35 degrees Fahrenheit, during the cold storage period, and it has occurred in fruit held for varying periods at 29 degrees, 30 degrees and 31 degrees Fahrenheit. It has occurred in fruit held somewhat above the freezing point, and it has occurred in fruit that was frozen for varying periods of time. It has occurred in fruit sprayed with oil during the growing season, and it has occurred in fruit that received only the customary applications of arsenate of lead.

Experimental Work

During the season of 1929-31, an experiment was conducted to ascertain the effect of certain chemically treated wraps on the development of Anjou scald. The experiment was started on September 2 with several boxes of Anjou pears, all taken from a single tree at Medford. Immediately after picking, the fruit was packed in standard box lots and the following treated wraps were used:

Lot 1. An oiled-paper wrap containing 18.2 per cent oil as determined by Fisher's method.

Lot 2. A copper-oil paper wrap containing 18.1 per cent oil and 1.4 per cent copper, equivalent to 5.5 per cent copper sulphate (CuSO4·5H2O). This particular wrap was originally prepared for use in tests on gray mold rot. The copper-sulphate content was only incidental to the experiment on Anjou scald.

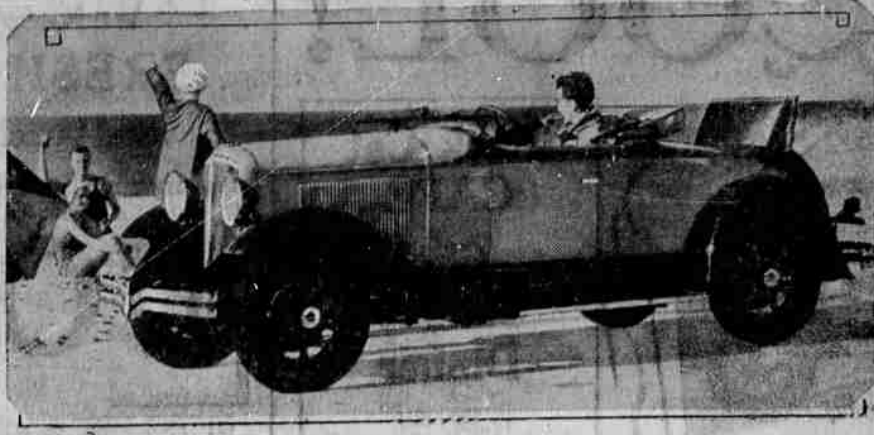
Lot 3. A plain paper wrap which had been dipped in a saturated solution of calcium hydroxide and dried in the sun.

Lot 4. A plain paper wrap of the type commonly used for pears. After packing, the fruit was stored at Medford at 31 degrees Fahrenheit, until the first week in December when it was shipped to New York City under standard refrigeration. Upon arrival in New York City, it was again stored at 31 degrees Fahrenheit. On December 23, one-half of the text boxes were removed to a ripening room, where the fruit was allowed to reach maturity at a temperature of 65 degrees Fahrenheit.

On April 2, the remaining boxes were placed in the ripening room, and the fruit was allowed to ripen at 65 degrees Fahrenheit as in the case of the former lots. Scald Development Prevented by Oiled Wraps

From the data obtained in the foregoing manner, it appears that oiled wraps have a marked influence on the development of Anjou scald. In fact, under the conditions of this experiment, Anjou scald was entirely prevented by the use of these wraps. In the case of the fruit packed in plain wraps and in the wraps treated with calcium hydroxide, scald began developing a few hours following removal from cold storage. With the oiled wraps, however, the fruit remained free from scald even to the time when it was breaking down from over-maturity. Even in cases where the wraps were taken off upon removal from cold storage, the fruit

Here's Answer to Call of Open Road



In the spring a young man's fancy—and a young woman's, too—gently turns to thoughts of—motor cars. Here's a Free Wheeling beauty that cannot help but fulfill the desire for courting the breezes of the open road. Handsomely upholstered in leather, this Studebaker Six roadster with its roomy rumble and racy lines offers performance, quality and value far beyond conventional standards of its price class. Price is \$95, at the factory, bumpers and spare tire extra.

History of the Trouble

The present trouble first came to the attention of the author in Bartlett pears from the crop of 1926. These pears had been in cold storage for several weeks and a loss of approximately five per cent occurred. In 1927, the trouble was again encountered in a lot of Washington Anjou pears that had been in cold storage for several months. The trouble again came to attention in 1928 when a loss of about three per cent was reported in Bartlett pears held for canning purposes at Vancouver, Wash., and when a car of Washington Bartlett pears developed it upon arrival in Texas. In 1930, a shipment of Bartlett pears from Medford developed typical symptoms of the trouble after about six weeks of cold storage.

In all the foregoing cases, the trouble was noted only after the fruit had been removed from cold storage and it was impossible to ascertain the exact conditions under which it had developed. All the early attempts to produce the trouble under known conditions resulted in failure. Neither holding the fruit in high concentrations of carbon dioxide nor freezing it for short periods produced any of the symptoms.

Effect of Oiled Wraps on the Fruit Itself

The possibility of deleterious effects from the use of oiled wraps on pears needs to be considered carefully before these wraps can be generally recommended for pears. This is especially true since it is known that respiratory activities of pears in storage can be influenced by the presence of oil or waxy materials. So far as the present experiment is concerned, no deleterious effects appeared that could be definitely charged to oiled wraps. The fruit in all cases ripened in a natural manner and developed normal color. For several years past, shippers of pears have used oiled wraps from time to time, and there appears to be no prejudice against the practice in commercial circles.

Oil-Copper Combination Offers Promise

Since copper treated wraps are now coming into use for the control of gray mold rot, the desirability of using a combination oil-copper wrap, which would be effective against both gray mold and Anjou scald, is obvious. As already indicated, such a paper was used in the present experiment with the result that both diseases were effectively controlled. Attempts to make a commercial oil-copper wrap. While the matter is still in the experimental stage, the results thus far obtained are promising.

Recommendations

Final recommendations regarding the use of oiled wraps for the control of Anjou scald cannot be made at this time, but the use of these wraps in a limited way appears to be justified, particularly in the case of Anjou pears from the Rogue River valley. While it is not recommended that entire crops of this variety be packed with oiled wraps this year, a number of cars so treated would afford opportunity to observe the results under commercial handling methods. In this connection, it would be well also to try in a limited way the oil-copper wraps. If wraps of this kind can be obtained in time for the present season.

A Peculiar Freezing Trouble of Pears in Cold Storage

The particular trouble described here is fairly definite and positive in its symptoms. In all cases the specimens affected have a glassy, water-logged appearance from the outside. Upon cutting, it is found that water-logging is confined to certain fairly definite locations. Usually a layer of it is found beneath the epidermis, involving several layers of cells in the outer portion of the fleshy tissue. Frequently, there is water-logged tissue within the core area. The remaining portion of the torus, for the most part, is dry and pithy and in advanced stages may crack open, leaving large, vacant spaces. Pears displaying the symptoms of this trouble often remain in an unchanged state for several weeks. They seem to be more or less resistant to decay and they do not undergo normal break-down from over-maturity. In all cases, however, the fruit is inedible and has no commercial value.

Failure of Bosc Pears to Develop Satisfactory Color

Occasionally lots of Rogue River Bosc pears fail to develop proper color upon arrival on the market. Cases of this kind were especially prevalent during the past season. Bosc pears displaying this condition are often referred to as "slate colored" Bosc by the trade in New York City.

In some cases, at least, lack of color in Bosc is merely due to the fact that the fruit is still too immature at the time of sale. There are cases, on the other hand, where the fruit actually reaches eating condition without developing the golden or bronze color characteristic of the variety. Experiments with fruit of the latter classification show that improvement in color can be brought about by delaying the time of picking for several days and by conditioning the fruit at eastern terminals at temperatures of about 55 degrees Fahrenheit instead of the customary 65 degrees Fahrenheit.

Acknowledgments

In the course of these investigations, the author received valuable aid from many individuals and agencies, such as the aid of the Southern Oregon experiment station, in the preparation and shipment of the experimental lots of fruit; the storage concerns of New York City, particularly the Merchants Refrigeration Company, and the Union Terminal & Cold Storage Company, in the donation of space and the construction of special facilities for the work; the eastern pears distributors, particularly the Erie & Pennsylvania railroads; Pacific Fruit Express; the auction companies of New York City; the trucking concerns of New York City; the Medford Winter Pear Committee, Inc., many growers and shippers of Medford, particularly Southern Oregon Sales, Inc., Pinnacle Packing Corporation and E. W. J. Hearty & Company; the Oregon State Agricultural college and the Oregon agricultural experiment station, in looking after the author's duties during his absence.

Relations with these Agencies

Relations with these agencies were indeed pleasant, and the author takes this opportunity to express his appreciation of the many courtesies and acts of kindness extended during the entire time.

Not completely dispose of the possibility of other casual agents.

It is not possible to completely dispose of the possibility of other casual agents. The present trouble first came to the attention of the author in Bartlett pears from the crop of 1926. These pears had been in cold storage for several weeks and a loss of approximately five per cent occurred. In 1927, the trouble was again encountered in a lot of Washington Anjou pears that had been in cold storage for several months. The trouble again came to attention in 1928 when a loss of about three per cent was reported in Bartlett pears held for canning purposes at Vancouver, Wash., and when a car of Washington Bartlett pears developed it upon arrival in Texas. In 1930, a shipment of Bartlett pears from Medford developed typical symptoms of the trouble after about six weeks of cold storage.

Experimental Work

Experiments based on the theory that the trouble might be due to long-continued freezing in storage were conducted during the past season. Several boxes of Anjou pears of uniform grade and size were selected for the work. These were of three stages of maturity: (1) green and firm; (2) partly ripened; and (3) in prime condition, ready for eating. After arrangement into convenient lots, fruit of each stage of maturity was subjected to freezing temperatures of 27 degrees, 23 degrees and 19 degrees Fahrenheit. At intervals of forty-eight hours, one week, two weeks, four weeks and six weeks, fruit from each lot was removed from the various cold rooms and was defrosted at a temperature of 32 degrees Fahrenheit. Examinations of the fruit were made from time to time.

Trouble Produced by Long Continued Freezing

As a result of the foregoing experiments, the trouble was definitely produced when the fruit remained frozen in storage for comparatively long periods at temperatures slightly below the freezing point of pears. When frozen for short periods, namely, forty-eight hours, one week and two weeks at temperatures of 27 degrees and 23 degrees Fahrenheit, the fruit usually recovered fairly well and did not develop the trouble. When frozen at these temperatures for periods of four weeks and six weeks, however, the fruit developed the trouble in typical form. This was true of all the fruit regardless of its degree of maturity at the beginning of the experiments. The fruit frozen at 19 degrees Fahrenheit, all broke down immediately after thawing, the tissue becoming watery and discolored without developing the glassy or water-logged condition.

The Data obtained here may well account for the occurrence of the trouble in past years.

The data obtained here may well account for the occurrence of the trouble in past years. Pears are frequently held in cold storage for several weeks or several months. Even the Bartlett variety is often held under refrigeration for periods of six to eight weeks or longer. At the same time, freezing at temperatures slightly below the freezing point may occasionally occur even in well managed storage plants. Especially is this true in the case of refrigeration systems that do not provide for the movement of air within the rooms.

Possibility of Other Casual Agents

From the results of these experiments, it cannot be assumed that long-continued freezing is the only cause of the trouble in question. While long-continued freezing did produce the trouble in typical form, the experiments did

AMERICAN YOKE IN LATIN LAND HIT BY MEXICO

Politician On Visit to Paris Makes Final Attack On South American Methods—Raps Monroe Doctrine

PARIS, July 11.—(UP)—Just at time when Europe was beginning to feel sorry for the United States and had quit talking about "imperialism" and the weird workings of the Monroe Doctrine, Senor Jose Vasconcelos, Minister of Public Instruction in Mexico from 1920 to 1925, came to Paris and issued a proclamation calling upon all Latin-America to "throw off the yoke of American military agents."

The onslaught of the Mexican politician is the most violent anti-American movement that has appeared in Paris since Sacco's and Vanzetti's executions caused anti-American rioting and manifestations throughout France, Spain and Italy.

"There is but one explanation of the hatred of the United States for it is not a race hatred," Senor Vasconcelos said. "It is simply that we refuse to see foreign interests constantly tied up without local governments. It is against our national interests. Our countries have become American factories. We want to put an end to this exploitation of our countries as American colonies."

Throughout Spanish-America there is unrest. "Our youths are tired of many dictatures which undeniably serve the interests of the United States. We want civil governments and will get them only by revolution. Dictators govern by force and must be overthrown by force."

Senor Vasconcelos called upon France for help, stating that French influence and prestige had suffered in Latin-America since those governments were "turned over to the United States for tutelage by the Versailles treaty."

BUTLER'S POLICE PLANS CONFLICT

SALEM, Ore., July 14.—(UP)—Policies suggested by Major-General Smedley D. Butler concerning the Oregon state police organization appear to be in conflict in some degree.

Lack of time will not permit the organization to be thoroughly trained before it makes its public appearance, Charles Pray, superintendent of police, explained. Butler had stressed the necessity of a perfectly trained force, claiming its initial appearance would create an important impression.

Pray said the uniforms would be distinctive but not sandy; motorcycles will be used for transportation wherever possible; no discrimination will be made with regard to age; it will make no difference if members are married or single, and other suggestions offered will not be deemed imperative.

Butler advocated an organization of young, unmarried men. He suggested uniforms with "lots of brass and color." Butler said touring cars carrying first aid, fire fighting and general motorists' relief equipment were the more practicable for transportation.

Gasoline Situation Improved, Is Claim

Commenting upon the recent rise in both wholesale and retail gasoline prices, Cy H. Pruner, district manager of the Gilmore Oil Company, declares that this move marks the end of a serious menace to the economic welfare of the entire Pacific coast.

The Gilmore executive pointed out that the oil industry on the Pacific coast for many weeks has been crippled with profitless prices, triply affecting the enormous investments made in the west, dividends to stockholders, payrolls of the various companies, and purchases of commodities from western concerns.

"There is no definite way to estimate the great losses that have been incurred during this period of price cutting," said Mr. Pruner. Thousands of employees have felt its effects. There have been bankruptcies and thousands of stockholders in many companies have suffered reduced dividends.

BUTTE STORES TO STOCK GOLD PANS

BUTTE, Mont., July 11.—(UP)—Gold pans for sale! For the first time in 40 years newspapers here are carrying advertisements of hardware stores that gold panning pans have been stocked.

Thus Montana revives her oldest and most romantic industry—placer mining. And the boys are taking to the hills. It sounds funny—hundreds of men drifting into the hills along streams, over the old trails along which the frontier forged.

A good living can be made panning the precious metal from old stream beds. Too, there's always the chance to make a lucky strike, a bonanza.

Ghost towns are showing signs of life. An occasional prospector from one of them is seen in town, a little or a bag of gold dust, giving token of his industry. Others return to the hills with him.

Always men seek gold, more so in times of depression. For as iron and food and other indispensables go down in value, gold goes up, its price a standard, being fixed by international agreement.

Frigidaire Holds Birthday Jubilee

DAYTON, O., July 11.—(AP)—A fifteenth anniversary jubilee, marking the brief span of years during which the electric refrigeration industry has grown from a swaddled infant to one of the most active and robust members of America's big business family, was formally opened today by E. G. Biechler, president and general manager of Frigidaire Corporation, according to Mr. Chamberlain of Chamberlain & Webber, Medford Frigidaire dealers.

Participation of the public as well as the vast Frigidaire family in the United States is included in the program, the announcement stated, and events have been arranged for every day and evening of the week, save Sundays during July and August. Mr. Biechler issued a general invitation to the public to be guests of this General Motors subsidiary at any Frigidaire showroom during the event.

"Fifteen years ago," Mr. Biechler said in opening the jubilee, "there were few electric refrigerators in use and these only in the homes of the wealthy. Today there are more than 3,000,000 in service and factories are working overtime to supply a rapidly increasing demand. This household appliance is no longer in the luxury class. It is economical to own and to operate and provides a range of household service undreamed of fifteen years ago."

"Frigidaire has been one of the outstanding pioneers in bringing the electric refrigerator from the expensive ice box class to the economical home servant it is today."

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Balance in 12 easy monthly payments. Following prices f. o. b. Toledo, Ohio:

- Willys Six . . . \$495 to \$850
- Willys Eight . . . 995 to 1295
- Willys-Knight . . . 845 to 1395
- Willys 1 1/2-Ton Chassis . . . 395
- Willys 1 1/2-Ton Chassis . . . 595

Use only GENUINE PARTS approved by the manufacturer of your car

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Nash Motors Ship Many Cars in June

KENOSHA, Wis., July 11.—(Special).—The Nash Motors Company shipped a total of 6,815 new cars during the month of June and entered July with 1,939 unfilled June orders to be added to the shipping schedule of the coming month.

All indications point to a demand for the four new models of sound proofed and strictly advanced Nash cars which will be fully as great or greater than in June, according to company officials.

And now... GRAHAM IMPROVED FREE WHEELING

NO MATTER how familiar you may be with earlier types of Free Wheeling, an entirely new sense of motoring ease and enjoyment awaits you in a new Graham Six or Eight with Graham Improved Free Wheeling. There is real thrill in the smoothness and silence with which you can shift without touching the clutch through all forward speeds. There is new economy as well as new delight in the way your car glides forward on the wings of momentum. And Graham Improved Free Wheeling is only one of the 54 important reasons why Graham cars are better cars.

Sizes, \$785 up; Eight, \$1185 up, at factory. Graham Improved Free Wheeling \$35 extra in any model, including the new, low priced Prosperity Six. Your present car will probably take the place of a cash down payment very favorable terms.

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Tourists Find Carnation Milk Farm an Attraction



Tourists from Oregon who spend their vacation in Western Washington and the Puget Sound country find an unusual attraction in the famous Carnation Milk Farm. Situated in the beautiful Snoqualmie Valley, about thirty miles from Seattle this farm has the distinction of maintaining one of the world's finest herds of Holstein-Friesian cattle—many of its animals being champions in their various classes.