

Farm and Garden

Frost Forecaster Conducts Continuing Research Work

A lean, sandy-haired, blue-eyed man climbs out of a black car with the state seal on the side, walks up to a pear tree and holds something which looks like a walkie-talkie next to a cluster of green buds.

This may be repeated several times on a cold frosty morning. The fruit rancher whose trees he is examining knows he is Bill Rogers, of the frost warning service of the U. S. Weather Bureau. The gadget is called a thermistor. It's used to measure the temperature inside the buds so it may be compared with the outside temperature. A long thin hypodermic-like needle attached to a cord is pushed into the heart of the bud. Sensitive antenna-like wires record the outside temperatures at the same time.

All of this is part of a continuing study by the weather bureau to determine the relation between the outside temperatures and the bud temperatures. This and other knowledge gained by the spot studies will be used to determine more accurately under what weather conditions the fruit may be damaged.

This research into what temperatures are considered critical to the development of fruit and what happens to the fruit bud during certain weather conditions is aimed also at helping the grower save money on smudging.

Rogers is one of 16 men stationed all over the "Far West" in this fruit frost warning service. Most of the men travel on a regular circuit. They hit the various localities when frost forecasting is vital to the growers. This includes both fruit and vegetables. During the fire season such men also aid the state and federal foresters with forecasts in being prepared in advance for the "under dry" conditions in the woods.

This is Rogers' third year in the Rogue valley. Ordinarily as frost warning supervisor of the fruit frost warning service for the far west, he spends all his time in the Pomona, Calif., headquarters. However, a shortage of personnel has brought him out into the field.

Not just any weatherman is allowed to enter this highly skilled and technical work. The frost forecasters receive basic education in college meteorology courses that include large doses of higher mathematics, physics and chemistry.

The Pomona headquarters prefer to train its own personnel. A trainee spends some time in the southern California orchards working with and studying heating practices. He works on the orchard heating crews. He must have a thorough knowledge of fruit production. Such a man is chosen from among "successful" forecasters. In other words his batting average in predicting the weather must be high.

After a year in the field in southern California the trainee is sent to a district. However, the new men are not sent to the Medford district since this is considered one of the toughest areas for frost forecasters. Cloudiness here makes forecasting difficult. Clouds may move in just as orchardists fire up. The temperature raising clouds may make it easier on the fruit, but it costs money just to fire up. Growers here are much more careful with their fruit, also, Rogers said. They can't afford to let any blossoms go. Therefore, the forecasts have to be right on the money.

Pears are more tender than oranges, Rogers said. Apricots are considered the most troublesome. A frost can wipe out a whole crop of peaches. How frost may affect the pear crop depends on the state of development. When the buds are in a cluster heating is required generally about 24 degrees. When in full bloom, heating is required at 28 or 29 degrees. After the petals drop and depending on the size of the pear, heating is required from 30 to 31 degrees.

"Of course a number of factors may affect the time for orchard heating," Rogers said. "Generally, the fruit is more easily frost-damaged in later stages of development." To make orchard heating easier on their neighbors as well as themselves growers

are gradually improving their heating techniques and equipment as a result of research done in the field by these frost warning men. The newer types of orchard heaters including the lazy flame, return stack and jumbo cone have all helped to cut down on the smoke.

Rogers puts in a full day and often a full night. In the morning he visits the U. S. Weather Bureau office in the Medford airport to get preliminary weather reports. Then he may get out in the orchard after a frost period to count the blossoms and evaluate the damage.

About 3:30 p.m. Rogers makes out his weather charts similar to those shown in the television weather reports. Important weather information is received on a teletype machine set up in his courthouse office. Next he makes his weather map. Then he visits the various thermometer stations scattered about the area. These are thermometers with a recording apparatus attached. As the temperature is measured by a thermometer, an electrically powered pen marks the temperature on graph paper attached to a drum.

Recording results and other weather information mentioned are used for his forecasts issued by radio and television stations each night. Rogers is also available most of the night to take temperature readings or to answer urgent questions of the growers.

The frost-warning period usually extends from March 15 to June 1. After he returns to Pomona he issues a report to the growers who he serves. This report is used by the growers to study their orchard heating practices and to make plans for next season's session. This service was first used in Medford in 1916.

"To make orchard heating easier on their neighbors as well as themselves growers

Dirt Growers Warned On Damping Off Trouble

By DON BERRY
County Horticultural Agent
Home gardeners seedling early spring vegetables and flowers in hot frames or greenhouses should take precautions against damping off.

Damping off is caused by a soil fungi which will attack both sprouting seeds and the tiny seedlings as they emerge, thus reducing the stand. Infected seedlings show a browning on the stems, wilt, and fall over. This trouble is common in greenhouses, hot beds and even outdoors during warm humid weather.

Seed treatment is the best method of control. Materials like Arasan or Captan are available to home gardeners

for treating their seed. A very small quantity, about as much as can be placed on the tip of a knife blade, added to seed packets and then shaken gently until seeds are coated, is the simplest method of treating.

Where damping off has been a serious problem, additional protection is obtained by dusting the surface of the soil with Captan or Ferbam, or drench with a solution made up using two level tablespoons of Captan or Ferbam in one gallon water, thoroughly soaking the soil at seeding time, and applying a second drench or dust as the young plants emerge.

Picking Good Spot Vital For Proper Garden Plot

By DON BERRY
County Horticultural Agent
Vegetable Garden Location

Picking a good spot for your garden is as important as buying good seed and giving it good care. A garden site that is level, well drained and in a sunny spot with rich, deep sandy loam soil, free of rocks, is most desirable, however since this is not possible with most home garden enthusiasts there are a few things every gardener should look for in planning the location of the garden spot. Most important is good drainage.

Often times vegetables will drown out if allowed to stand too long in water or very wet soil. Carrots are especially susceptible to drowning and too much moisture in badly drained areas deprive plant roots of air and nutrients needed for healthy development. Draining wet spots before preparing soil also of benefit and the presence of green scum on the soil surface is one of the indications of excessive moisture. Where gardeners are unable to drain properly otherwise, planting on ridges will help.

Another important ingredient is plenty of sunshine. Direct sunlight for at least six hours a day is a must for leafy crops like lettuce, spin-

ach, chard and kale. Others, like tomatoes, egg plants and peppers, will need more. Trees not only give excessive shade but their roots compete for moisture and plant foods.

One more important consideration in choosing a location is a good source of water. City or irrigation water will afford protection against summer droughts, but in some local areas the deeper wells are salty which is detrimental to garden plants.

Generally speaking, a soil that is well drained and produces rank growth of weeds and grass will also produce good vegetables.

Dairy Building Plan Given In Bulletin

Corvallis—How to design modern dairy buildings for the greatest efficiency and still allow for economical expansion at a later date is explained in a new bulletin released by the Oregon State college extension service.

Titled, "Dairy Buildings," the new bulletin was published by OSC in cooperation with the extension services of University of Idaho and Washington State college. Advantages of the loose-housing system for dairy cattle are explained.

--- CHIT CHAT ---

By JOE G. COWLEY
Mail Tribune Farm Editor

Farming, fishing and hunting just naturally seem to go together. From what we have observed there are very few farmers who are not good fishermen and hunters.

The other day we saw a sign announcing the start of fishing season is not far off. Like a lot of people who don't get out with a pole as often as they would like, we started thinking of fishing we would like to do, what we can do and what we have done. That brought to mind an old retired lawyer and an ex-farmer by the name of Herb Kerr. Also a 10-year-old boy he took salmon fishing for the first time.

For days afterwards this youngster told how he, Kerr and Kerr's old fishing buddy climbed into a boat mounted on a small cart and how the cart whizzed down a set of tracks into the water with a splash. Usually the boat didn't travel that fast but if the lad had looked sharp he would have noticed old Herb's wink to the fishing pier attendant. Then there was the hours of sitting in the rowboat as the outboard gently pushed it along at trolling speed. Nothing happened for what seemed like hours, then the quick tug on the line and a salmon trout was quickly gaffed and boated. During the waiting the two old-timers swapped fishing and hunting yarns. One time Kerr slyly reached around and gave his partner's line a quick little tug. Then there was much excitement as the old gentleman quickly started to reel in—suddenly realized the joke was on him—and the guffaws which followed.

This, too, is the long way around the barn, but what we are aiming at is the farmer is usually both sports and conservation minded. Also, if more men took a neighbor boy or their own son fishing how much more enjoyment they would both get out of the outdoors and the invaluable lessons which could be learned. The lad old Herb took fishing will never forget that and similar experiences the ex-farmer was generous enough to provide. This might be one answer to juvenile delinquency.

The other thing we mentioned—that the farmer is both conservation and sports-minded—is now being recognized by some of the more responsible sportsmen. Many of these belong to the Izaak Walton League. The Jackson county chapter has written for more information and instructions on how to put a new plan—Frontiers, Inc., into operation in the Rogue valley area. This is a new attempt to improve farmer-sportsman relations. According to those who are pushing it, such a plan would open up a lot of game land which otherwise might be closed to the sportsman.

Farmers over the years have become tired of seeing stock stray out through gates left open by careless hunters, having their stock shot up and other resulting property damage. And rightfully so. This new plan proposes to insure the farmer against any such loss or damage if he agrees to open his land to hunters who belong to Frontiers, Inc. The money these hunters pay into this organization is used to pay any damage claims by the farmers. It costs the farmer nothing. Members of the Izaak Walton League here are anxious to start this plan working in the valley. If it works as well as it looks it should be plenty good.

Another league project now under study is a proposed chapter tree farm program. Aim is to promote conservation education. This plan calls for a chapter to buy a tract of forest land and seek to have it certified in the industry-operated tree farm program. Such a farm would be supervised by a tree farm committee which would obtain professional forestry advice. Work would be done by the chapter members.

League members pushing this idea point out, that while the primary purpose of tree farming is to grow forest crops, the tree farm can also provide picnic and swimming facilities, a rifle or archery range, hiking trails, berry patches, and fishing spots.

Members of the Izaak Walton League here seem to be right up with the farmer in appreciation of women's ability. In commenting this chapter as "chapter with the best program of the month," one of the national officers stated, "They recognize the importance of women in conservation." The farmer has long recognized the importance of women. In many farm families she is the one who keeps the bank book straight, financial records, plus many farm records needed to insure wise farming practices.

Some of the "board punchers" (telephone operators) over at the telephone office complain there isn't enough about dairying in this column on the farm page. We hope to correct that. Meanwhile here is something we hope will hold their attention:

The opinion of Circuit Judge Val D. Sloper of Marion

Oregon Grain Prices May Stay Approximately Same

Corvallis—Oregon grain prices are likely to drop but hay, and seed prices for 1958 should be about the same as last year with prospects of slight price increases for some seed crops, reported Ray H. Teal, Oregon State college and grain marketing specialist.

Wheat will remain the best paying grain for many Oregon farmers even if the announced cut of 22 cents a bushel in national support rates is permitted to go into effect, the specialist says.

Prices for Pacific Northwest white wheat are not likely to average much above supports this year. Exports of white wheat in recent months have fallen below a year ago and prices for carryover stocks can be expected to decline toward the support price for the new crop, Teal stated.

Feed grains have little chance of bringing better prices than last year due to a further build-up of carryover stocks across the country, he continued. Recently announced national support price for 1958-crop oats is the same as last year, but the rate on barley is two cents lower.

Malting barley price levels are expected to tie closely to feed barley prices. Storage Plans Suggested
Growers of feed grains are advised to make arrangements for suitable storage to qualify for government supports since

prices are likely to drop but low support levels at harvest time.

Teal sees little chance for improvement in hay prices in 1958. Stocks are large in producing areas as a result of lighter feeding during the mild winter. Prices have some chance of going higher next fall if mouse-damage to hay fields proves as severe as some areas report.

The 1958 price picture for most turf seeds is about the same as last year. Supplies of fine fescues are reported moving well, and use of turf seeds is likely to continue heavy around homes and schools, along highways, and in recreation areas.

Common Ryegrass seed prices are looking up slightly, partly as a result of short crops in Europe and New Zealand. Alfalfa and red clover seed harvests have declined during the past two years, bringing fair chance for price improvements, Teal noted.

EGYPT STRIKES OIL

Cairo—Minister of Industry Aziz Sidky said today the discovery of a new oil field in the Sinai Desert is a "turning point" for his country's industrial development. Sidky said the fields will "enable Egypt to become self-sufficient and even an exporter of oil."

county on the validity of the brucellosis testing law clears the air of any doubt as to its validity, according to a recently issued statement by Robert J. Steward, state director of agriculture.

Steward points out in his statement that the testing program was established by the department under the 1957 brucellosis act.

"At this point, 80 per cent of the testing has been completed. We believe any cattlemen who have been hesitant to test pending the outcome of this case will now join forces to see the state of Oregon gains a brucellosis-free status with next year," Steward said.

The case was carried to the court by cattlemen chiefly from Walla and Gilliam counties.

Steward has urged all cattlemen who have not tested their stock to make contact with the nearest state or federal veterinarian to schedule an early test.

He said the testing program has continued uninterrupted since last August 23, the date the suit was filed. From Sept. 1 to March 1, 220,803 cattle were tested in the state, with 1996 reactors discovered. During the same period, calfhood vaccination was stepped up to 80,480 head of young stock.

He added that since September, Hood River county has achieved certification status and seven more counties are on the brink of completing testing. These counties are Grant, Baker, Union, Polk, Lincoln, Benton and Clackamas. This will place 22 of 36 counties on the brucellosis-free rolls.

Some counties are nearing the deadline for completion of testing. They should act now so they will not lose all progress which has been made to date, the director said.



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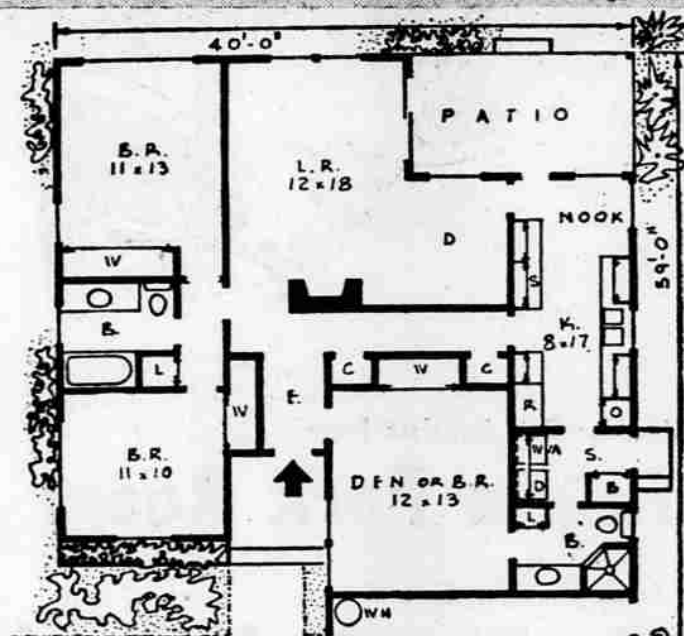
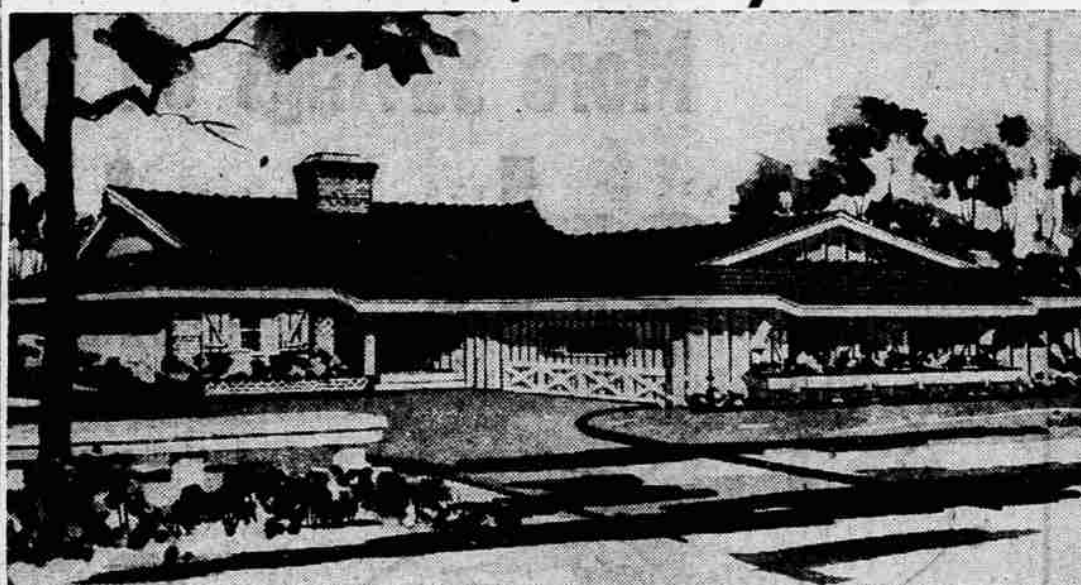
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This Week's Town, Country House



PLAN NO. 3528
1295 SQ. FT.
20' x 20'

By HIAWATHA ESTES

This story and a half home retains the charm of our colonial heritage, yet the interior is as modern as tomorrow. Nothing has been done to alter the traditional Cape Cod lines. Dormers look out from the stained shingle roof and louvered shutters border the rows of windows on the lower floor. Warm toned brick veneer is used across the entire front wall and horizontal siding is used elsewhere.

The entrance hall is lighted by four small panes of glass in the front door. A wide staircase leads to the second floor from this entry.

Upstairs are three spacious bedrooms, two baths and an incredible amount of wardrobe, closet and storage space. The family bath, with

recessed tub and pullman lavatory and the separate half-bath will ease early morning clean-up traffic for even a large family.

A third bath, with a stall shower instead of a tub, serves the den-guest room on the ground floor and is also accessible through the service-laundry room.

The super-kitchen is a housewife's dream come true—double windows over a double sink; built-in oven, refrigerator and surface cooking units; lots of cabinets and drawers for top efficiency.

A dining bar divides the kitchen from the big, bright family room. Cupboards above open to both sides to save steps in table setting and clean-up.

Across the back of the family room, large glass doors

offer a wide view and open in summer for relaxing patio living.

To help lower construction costs the corner fireplaces in the family room and living room are built as a unit.

Sliding doors between the living and family rooms can close them off for privacy or open wide to unite the areas when you entertain.

The water heater and forced air unit are located in the large double garage which is accessible from the den.

Complete working drawing of the above plan can be obtained at a cost of \$7.50 for the first set and \$5 for each additional set, when ordered at the same time. This plan will be available for a period of four months from this date. Please allow two weeks for delivery. If the above home does not entirely meet with your satisfaction a new home plan book, Town and Country Homes, may be purchased for \$1. Send all orders for either plans or books to Hiawatha Estes, P.O. Box 404-T, Northridge, Calif.



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