

Crop Forecasting Advances Noted By Visiting Meteorologist at OSU

Corvallis - Highly accurate forecasts of crop maturity and yields are now possible and crop quality forecasts will come in the near future, according to a nationally-known agricultural meteorologist who is a visiting professor at Oregon State University.

The forecasts will be possible early in the season — perhaps as early as 12 to 20 days after planting, says Dr. Jen Yu (David) Wang.

Revised yield forecasts have to be issued later in the season depending on the current weather but maturity and quality forecasts can be made quite accurately without using long-range weather forecasts, he insists.

Wang has been in charge of crop forecast research at University of Wisconsin since

1957. Crop maturity date forecasts made 12 to 20 days after planting in 1961 proved to be 85 to 95 per cent accurate for sweet corn and peas.

Last year, his forecasts covered yields as well as maturity date. For peas, the accuracy of these forecasts ranged from 75 to 99 per cent at various test sites and from 89 to 97 per cent for sweet corn.

He expects to add quality forecasts to maturity and yield outlook within five years. There aren't many crops that can't be forecast, he says.

Helps Canning

Such forecasts are of tremendous value to the canning industry and to other agricultural interests, Wang pointed out.

Wang's forecast methods combine the ancient science of phenology with the latest electronic measuring and recording instruments to give almost minute-by-minute information on the crop and environment.

Phenology, a science dating back to ancient China, is the use of plants or animals as indicators of weather conditions, he explains. More formally, it is a study of the relationships between various physical environmental factors and periodic changes in growth and development during the life cycles of plants and animals.

A basic concept is that all plants have a certain minimum air temperature necessary for growth depending upon the environmental con-

ditions. A certain number of these temperature "units" are required for crop maturity, depending upon species and varieties.

Air and soil temperatures and a number of other factors are considered the significant elements, Wang says, and the planting-to-seeding stage as the significant period.

Eight years of work at University of Wisconsin indicate that soil temperature at the early stage is the predetermining factor for maturity of sweet corn. Similarly, night temperature is the significant element at the reproductive stage of sweet corn, according to Wang.

Wang uses electronic recording devices to keep an "eye" on soil and air temperature, evaporation, precipitation, etc. Findings are plotted, predicting equations developed and worked out on computers.

Wang came to OSU to conduct a special series of seminars on agricultural meteorology. He was earlier a Weather Bureau Meteorologist and teacher in China and Formosa before coming to this country for graduate work at University of Chicago and Wisconsin.

Two books by Wang have been published the past year. One is a 700-page "Bibliography of Agricultural Meteorology," the other is titled "Agricultural Meteorology."

220 Cattle Sell On Small Run At Midway Yard

A total of 220 cattle were sold at the Midway Auction yard Friday, April 19, according to Bill Bray, owner-manager.

He reported the market active on another small run. Good to choice steer calves were holding steady around \$28 to \$30. A pen of choice quality 350 pound Angus steer calves sold to an eastern Oregon buyer for \$115 per head.

Medium grade calves weighing 350 to 450 pounds moved easily at \$24 to \$27.50 per hundredweight.

Good to choice heifer calves sold for \$25 to \$27.10. Medium heifer calves sold for \$21 to \$24.50.

Good yearling steers sold for \$22 to \$24.80. A pen of 610 pound steers went for \$23.10.

Yearling heifers brought \$21 to \$23.90. Medium heifers sold for \$19 to \$21.

Small Lots

A pen of small lots of good cows with calves sold from \$210 to \$240 per pair and a pen of very common cows with sized calves went for \$187.50. Other pairs sold for \$160 to \$185 per pair.

The fat cow market has improved, Bray noted. Some cows sold from \$16.50 to \$18. Heavy utility cows went out at \$15 to \$16.25. Cutters sold for \$13 to \$14.75 and thin cows sold for \$10 to \$12.75.

"We have 60 head of cows with calves coming in this week and we expect a much better run of stockers than we have been getting during this poor weather," Bray said. "If you are looking for stock, be sure to come to this sale."

Incorrect Weights Found on Packages

Salem - The consumer isn't the only one watching the weight of packaged meats he buys.

Inspectors with the Oregon Department of Agriculture are continually checking packaged meats for correct weights.

During the first three months of this year the department checked 11,903 packages. Correct weights were found on 9,525 of these, while 1,995 were underweight and 383 were overweight.

FROM THE GROUND UP

By BART BARTLETT

Today we are getting the type of weather that we need for several days.

The sun is shining and regardless of the temperature the young leaves of all types of plants are getting the solar energy they need to turn green and make food for the parent plants to grow and produce crops and forage.

This area does not have favorable spring weather for most plants. Those that can do with a low level of sunlight need a higher spring temperature than this area has and those that blossom early (pears, peaches) need green supporting leaves much earlier than they can get them.

The latter case is one that exists because the sun does not shine enough during early spring. At this time the leaves of fruit trees appear to be weak and lack green color. A few days of sun will easily correct this trouble, but may be too late to have influenced the strong type of blossoms that would have been beneficial to a proper set of fruit.

Plans Afoot

There are plans afoot to have an expensive frost reporting service set up for the valley orchards. This is viewed as definitely a worthwhile expense. I do not believe in going along just so someone can sleep. If his crops suffer from frost, it is only logical and easy to say the system is at fault. This incidentally is the only critical thing that can be said about the federal frost warning service, when things go wrong a goat or two must be ready to assume the role of targets for permitting the disaster to occur. It has been the experience of this writer that things do and will go wrong. It will get cold, men and equipment must be managed to get jobs done. All of the electronic hookups that have yet been devised will not prevent it being necessary for someone in management finally having to hang up the phone, get out of bed and go to work in the field.

Wait a Week

It will be wise to wait a week yet before trying to plant frost tender plants and seeds. It will take that long for the soil to dry out sufficiently for the stirring that will probably be necessary for planting. Also by the time another week has passed perhaps the most frosty of our weather will be behind us for this year.

It is our wish that Mr. C. C. Hoover accept our thanks for his efforts in regards to getting trees planted in this area. In the future men may run out of trees and by then these may be substitutes available for the wood products that they provide for his use. It is doubtful whether or not by that time that man will have provided himself with the means of climate control that is currently being accomplished by trees. Man is a miner by nature, regardless of whether the resource is on or underneath the surface of the earth. Climate in terms of winds, temperature and humidity are in large measure dependent upon the vegetative cover of the soil. Trees are important in this regard. If you must garden, plant onions, chives, radishes and the various members of the cabbage family.

Where lawns are infested with plantain, dandelion or other broadleaf weeds a spray of 2, 4 D will take care of the problem. See your seed dealer for material and advice.

Do a complete clean-up job . . . right from the start of the growing season . . . by putting the Stauffer Flowables into your first cover!

Plan Weed Control For Corn Early

By RAY HUBBELL
Weed Control Supervisor
Weather permitting, one of these days we may start preparing our fields for planting corn. Corn may want to be considered for some fields intended for grain but that

FARM

Woodlot Facts

By DICK OLSON
Oregon State Farm Forester
SEEDING

Last winter a single seed-laden helicopter invaded northern Clark county in Washington and in less than an hour transformed 80 acres of brushland into tree farms of the future.

It was the "whirlybird's" first flight in the county, but it demonstrated a new form of mechanized farming which could have far reaching effects for thousands of acres of wood and brushlands in this area.

The helicopter distributed Douglas Fir seed on two privately-owned farms at the rate of 3½ acres a minute. It whipped across the county to the Ireland district near Camas to plant another 50 acre site and then returned to its temporary base near Amboy. The total project required only 90 minutes of time.

Local forestry experts watching the premier flight estimated the "copter" slashed normal hand planting costs by two-thirds.

Used By Large Companies

The helicopter was operated by Perpetual Forests, Inc., Seattle, which is still experimenting with the use of aerial seeding on private lots. Helicopter seeding, however, has been used effectively by large companies for several years, such as Crown Zellerbach, International Paper company, Georgia Pacific and the state and federal forestry departments. It is hoped that the helicopter's scope can be widened to include small privately owned acreages.

Methods of distributing the seed from helicopters have been developed over the last nine years and at the present time the results are quite successful. No exact number of seedlings can be guaranteed from the plantings because growth depends on weather, pest damage and many other variables. Results as high as 16,000 seedlings per acre have been recorded and stands are nearly always more than adequate.

couldn't be worked in time to be guaranteed a crop.

It is not too early to plan your weed control program right along with ground preparation, seed, fertilizer and irrigation needs. Depending upon the control measures that might fit your situation best, and because different chemicals used require different preparations, it is very important these are considered at the start.

Good weed control requires the proper rate of herbicide according to your soil type and weeds to be controlled. Equipment must be carefully calibrated for uniform distribution. Adequate moisture must be available to activate the chemical and the ground should be prepared in such a manner so as to best serve the needs of the crop and weed control chemicals being used.

Chemicals Available

Several chemicals are available for use in weed control in corn. They vary in application requirements from incorporation prior to planting, applied to the soil surface during planting, either band or broadcast, after planting but before the corn emerges or after both corn and weeds are up. These materials are also formulated as liquid sprays, wettable powders and in granular form to serve your particular needs.

Band treatments are used where equipment is available for this application, but broadcast treatments are most generally used because of the ease, speed and convenience of applications. The number of cultivations are reduced or eliminated. Broadcast sprays provide weed control over the entire field, reducing the number of weeds that go to seed. By controlling weeds in and between the rows, more moisture and soil nutrients are available to the corn.

The chemicals used for weed control in corn are "Dinitro Butyl phenol amine," 2,4-D, Radox, Atrazine or Eptam. Whichever one you choose to use for your crop, READ THE LABEL, make the required preparations for its use and apply at the rates and time the label states. Only by following all of these requirements will you get the weed control you are entitled to expect.

Salt, well known as a weed killer, acts as a fertilizer for some crops, among them sugar beets.

Gardening Tips

By JOHN W. McLOUGHLIN
County Extension Agent
Starter Solutions

You can reduce the harmful effects of transplanting by fertilizing the transplants with a starter solution.

A starter solution is used on plants prior to removing them from the flat or while setting them in the garden. This treatment will mean earlier yields and more production from your garden.

A starter solution is made by mixing a small, measured amount of fertilizer in water. Any commercial fertilizer that is highly soluble in water may be used. Starter solutions are not made from organic sources of plant food such as bone meal or tankage.

The main benefit received from a starter solution is that of providing the plant with immediately available food. This stimulates leaf and root growth and gives the plant a quick pickup after transplanting.

Carefully measure the fertilizer in preparing the starter solution. You may damage plants by using too strong of a solution. Keep the solution stirred when applying it, to assure that all plants are fertilized equally.

You can use a number of different mixtures for the starter solution. The mixtures are as follows: Three rounded tablespoons of ammonium

phosphate in five gallons of water, 1½ rounded tablespoons of ammonium sulfate in five gallons of water, or one rounded tablespoon of 6-10-4, 5-10-10 or similar fertilizer to one gallon of water.

Application
Water the plants in the flats with the starter solution several hours before setting them in the garden. Apply the solution to the soil in the flat. Do not sprinkle the foliage of the plants with the solution. Be sure to wash off any solution spilled on the foliage.

This thorough wetting of soil will make it easier to cut the plants out of the flat and will cause less root disturbance. It will also provide available plant food in the ball of the soil that is cut out of the flat.

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Stockmen Oppose Dual Grading

The Jackson County Stockmen's association went on record at its annual spring meeting Thursday against dual grading of beef.

This resolution follows one made by the Cal-Ore Hereford association here earlier.

The resolution reads: Whereas beef has been dual graded at the request of the American National Cattleman's association and has been in force for the last few months.

Whereas it has proven to be slightly unworkable for various reasons, and the department of agriculture is unwilling to adjust, therefore, be it resolved the Jackson County Stockmen's association goes on record to ask the U. S. Department of Agriculture to discontinue the dual grading after July 1, 1963.

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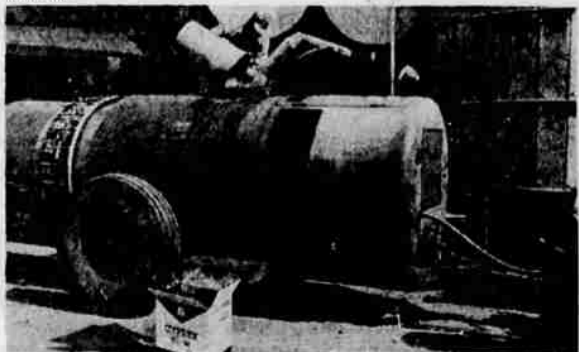
Cyprex is compatible with most insecticides and fungicides. It is also now available in dust form. Consult local authorities for further information. Or, contact American Cyanamid Company, Agricultural Division, Los Angeles 54, Oakland 12 or Portland 8.



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New Feeder Pig Rule Applies to Shipping

Salem - New federal interstate shipping rules for feeder pigs and breeding swine were placed in effect April 1.

These rules, which are in support of the cooperative state-federal effort to eradicate hog cholera, provide for health inspection and vaccination of feeder pigs and breeder swine involved in interstate commerce.

Cows vary in their appetite for salt just as they do in their appetite for feed. Let them have free access to a salt feeding box and they'll take what they need.

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