

# Rust Control Chemical Under Test At Station

An experimental chemical which gave highly effective control of stripe rust in Omar wheat with one application in 1963 is under test at the Pendleton branch station of Oregon State University's Agricultural Experiment Station.

Stripe rust in 1961, year of the last major outbreak of the disease, cost Oregon wheat growers an estimated \$10 million. Losses were smaller, but still significant, in 1962 and 1963.

The research was conducted by Donald George, research agronomist with the Crop Research Division, U.S. Department of Agriculture Agricultural Research Service. He is stationed at Pendleton.

George designed his experiment to compare relative effectiveness of three chemicals in controlling stripe rust on Omar wheat in the field. All three were known to be active in control of certain rust fungi under some conditions.

The most promising treatment was with a chemical known as N-3412 or dichlorotetrafluoroacetone. Plots receiving four pounds per acre of this chemical yielded 50 per cent more grain than untreated check plots and had 70 per cent greater sheaf weight.

George also observed that plant height and number of heads per plot were also increased by the treatment, while test weight and germinating ability were unaffected.

Results indicate that stripe rust in Omar wheat, a white club variety, can be effectively controlled by a single application of the experimental chemical under some field conditions, he pointed out.

However, the researcher stressed that results of analysis for detection and measurement of possible chemical residues in the grain are not yet available and it is too early to predict its approval for use on wheat grown for food or feed purposes.

Stripe rust, which periodically has been a severe problem in Pacific Northwest wheat producing areas, caused yield reductions in this experiment primarily through decrease in the number of heads per plot. Other workers have reported it also reduces the size and number of kernels, causes shriveling of the grain, and results in severe reduction in root growth of infected wheat plants.

## 4-H News

There are ten members in the Kono Leatherettes Club. We have had four meetings. We sent for our kits and they have arrived. We will soon begin our first projects. Officers elected were: Doug Stewart, president; Lorrie Riggs, vice president; Susie Becker, secretary; Henrietta Selles, song and game leader; Bobby Flowers, sergeant at arms; Craig Urban, runner; and Roger Crandall, news reporter.

# FARM REVIEW

HERALD AND NEWS, Klamath Falls, Oregon Tuesday, December 10, 1963 PAGE-11



**NATIONAL WINNERS** — Four of five Oregon 4-H'ers have been named national winners at the 42nd National 4-H Club Congress held in Chicago. Shown here, left to right are Lois Redman, Oregon 4-H extension agent, OSU, Corvallis; Linda Jenkins, 18, Fairview, winner in the bread program; Sharon Carpenter, 20, Albany, winner in leadership; Joyce Harold, 18, Astoria, winner in poultry, and Roger Hamlin, 17, Corvallis, winner in field crops. Each received a \$500 college scholarship. Also a national winner, but not attending the Congress was Janet Fosberg, 20, Boring.

## Theory May Explain Nitrogen Loss

Researchers in the Oregon State University Agricultural Experiment Station have advanced a new theory to explain some of the losses of nitrogen from the soil.

It has long been common knowledge that various bacteria cause nitrogen loss in water-

logged, poorly-aerated soil. The bacteria change nitrates into a gas which is released into the air.

However, researchers have been puzzled by non-bacterial losses of nitrogen, where the soil is well aerated, and under optimum moisture conditions.

According to Leroy H. Wallstein and Dr. C. M. Gilmour of the OSU Department of Microbiology, laboratory studies show that transition metals such as iron and copper, under the proper chemical conditions, react with nitrate in the soil to

form nitrogen dioxide, which is then lost into the air.

This new mechanism of nitrate loss may hold the answer to some cases where crops have failed to respond to nitrogen fertilization. The disappearance of nitrogen can mean a serious out-of-pocket loss to the farmer who has laid out money for commercial fertilizer.

The OSU soil scientists also found a remedy for the nitrogen loss. Addition of lime, or calcium carbonate, to the soil prevented the chemical reaction which released the nitrogen.

## Checkers Need Two State O.K.

Brand inspectors checking cattle in the North Portland Union Stockyards will be approved by both Oregon and Washington in the future.

The Oregon brand inspection program is under the Oregon Department of Agriculture. The recently approved agreement between the two states means that inspectors from both of the states can clear cattle from either state.

Washington will also provide another part-time man at the stockyard. That state has had one full-time man and one part-time man.

Oregon has had five men on duty at the stockyard. However, one has been backtagging for brucellosis tests and another has been spending part of his time on the backtagging program.

## 4-H News

**SUSIE'S SUPER SEWERS**  
The Super Sewers 4-H Clothing Club has decided to have a doll clothes program as a community project. On Thursday, Nov. 14, at Mrs. Charles Burt's home, everyone was quite busy trying to make the doll clothes program a big success.

Marilyn Oiles, News Reporter.

# Decline In Fresh Potatoes Forecast; Need Increases For Process Plant

By WALT JENDRZEJEWSKI  
County Extension Agent

The Basin, now more than ever before, needs a processing outlet for smaller sized smooth tubers which presently go into the livestock feed and starch outlets at salvage prices which do not even cover harvesting costs.

These small smooth tubers lend themselves well to eye and steam peeling and are utilized in Idaho and other potato producing areas for the production of "instant mashed" potato products.

Development of a large national potato processing industry has greatly sharpened competition for the fresh market.

The market for fresh potatoes is requiring increasingly better packs including pack splitting and packaging of potatoes uniformly sized within a two ounce weight range (as 8-10 and 10-12 oz).

As consumers increase use of processed potatoes, we can expect further declines in per capita consumption of potatoes in fresh form.

Some predict that fresh sales may eventually be limited to sized packs for baking purposes.

As an increasing percentage of field run production is culled, establishment of processing outlets capable of returning better than salvage price for cull-out becomes a more critical need.

National processing capacity for production of dehydrated potato granules and flakes (instant mashed), is reported more than ample for current demand. Past efforts to interest established processors to locate here for flake or granule production have not been successful. From the viewpoint of growers, granule and flake processing outlets have not proven much better than salvage outlets in areas where they are operating.

Two newer processing developments of recent years may offer an opportunity for establishment of potato processing in Klamath Basin.

These are a new dehydration process which produces dices or slices which rehydrate rapidly into an excellent product which has a very short preparation

## Diversion Requested

By WALT JENDRZEJEWSKI  
County Extension Agent

Idaho's potato marketing order control committee at a meeting held Dec. 6, amended that the state's marketing regulations to qualify for participation in the potato diversion program and has requested diversion, according to information received at the Klamath County agent's office.

Qualification for diversion program eligibility requires regulation prohibiting shipment of any potatoes under 2 inches in diameter and a 6 oz. minimum size for No. 2's of long varieties.

It was expected that diversion to livestock feed and starch and flour will be approved for Idaho within 10 days.

Idaho Market News reports have been quoting 40 to 50 cent prices to growers for No. 2 potatoes.

Diversion to starch, flour or livestock feed under the program earns growers 50 cents per cwt. for No. 2 or better potatoes which are more than 2 inches in diameter, in addition to salvage value from these outlets.

Idaho has joined the Oregon-California Marketing Order area in requesting extension of the 50 cent rate to March 1, 1964.

It was suggested that Idaho's tardy decision to participate in the potato diversion program should have some strengthening effect on potato markets for the balance of the season.

time requirement.

Dehydro freezing is another newer process which may offer an opportunity for production of dehydrated diced or sliced potatoes.

To establish a potato processing outlet in Klamath, it may be necessary to seize a new product opportunity at an early development stage and to depend on local business management and organization and financing to provide processing facilities and marketing efforts.

Local ownership appears to be the only method of assuring that benefits from processing return to the production area. It is recognized that ownership involves risk as well as rewards. But it is increasingly apparent that "the Lord helps those who help themselves."

Currently it appears desirable that prompt investigation of dehydro freezing and the new heat dehydration process be undertaken so that Klamath will

not be passed by and left holding the sack as was the case with development of the frozen fry business and of the granule and flake business.

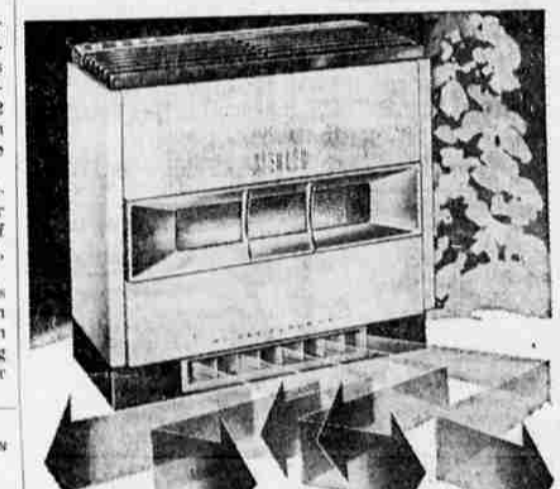
The county agent's office is attempting a some preliminary investigations of the two new dehydration processes listed.

Much wider interest and effort will be necessary if preliminary investigations prove promising.

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## Chemical Short Course Opens Dec. 18 At OSU

The annual Oregon Chemical Applicators short course is planned Dec. 18 to 20 at Oregon State University, according to I. C. MacSwan, OSU extension plant pathologist and chairman of the planning committee.

The short course is sponsored jointly by the OSU School of Agriculture and the Oregon State Department of Agriculture. It is designed for commercial operators in the business of applying agricultural chemicals.

Sessions this year are planned for both aerial and ground applicators as well as pesticide applicators who work primarily around homes and parks, the specialist explained.

Topics scheduled to be discussed include residue problems and pesticide drift, aerial applications on forest lands, soil fumigation, weed control in ornamental plants and control of perennial weeds.

In addition to the subject matter sessions, two Oregon applicator organizations will meet during the short course. Meeting will be the ground spray applicators headed by Don Russen, Salem, and the air operators, led by Lester Liston, Klamath Falls.

All meetings will be held in Withycombe Auditorium on the campus.

## 4-H NEWS

**THRIFTY KNITTERS**

The first meeting of the Thrifty Knitters Club met at the home of Mrs. Wayne Wakkuri, the leader. Five members attended the meeting which was held Nov. 6. We elected the following officers: Laurie Ferguson, president; Jeanne Herbert, vice president; Zona Churchill, secretary-treasurer; and Christi Bailey, news reporter.

The next meeting will be at Mrs. Wakkuri's home on Nov. 20.

Christie Bailey, News Reporter.

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