



**OVERLAND OATS** certainly did well in the Klamath Basin this year as this picture proves. The picture was taken recently on the Tulana Farms site and shows, left to right, Dr. Allen Dickson, Harlan Stevens and Dick Henzel. Dr. Dickson is in charge of the Malting Barley Quality Laboratory at Madison, Wisconsin. Stevens is plant breeder at the Aberdeen Idaho Experiment Station. The two were visiting the Henzel's acres on a tour. Stevens is credited with developing both the Overland and Park Oats varieties, both being grown extensively in the Basin.

## Rust Invades Many Basin Wheat Fields This Year

By WALT JENDRZEJEWSKI

Prevalence of rust in many oat and wheat fields in the Basin has many farmers interested in this disease.

There are many types of rust fungi. Some parasitize only one species of plant. A rust which parasitizes two plant species and has five types of spores in its life cycle is stem rust of wheat.

The five spore types are the red uredospores which spread rust from grain plant to grain plant, the dark teliospores, which infest nothing but remain on straw or stubble, resisting winter temperatures and germinate in spring to produce the basidiospores, which carry rust to barberry, infect it, germinate, and produce pycniospores, which fuse sexually to produce aeciospores, which infect the grain plant.

That's complicated enough so that it comes to you from USDA's Yearbook "Plant Diseases" rather than from my memory.

You should infer that our rust outbreak may have started in barberry perhaps hundreds of miles away which came into nearby fields as aeciospores and then swept farther on the winds as red rust uredospores from infested grain fields hundreds of miles away. A combination of favorable environment in the barberry patches and in grain fields here gives us rust troubles. There's no control except resistance which plant breeders may succeed in breeding into new varieties.

"Plant Diseases" reports that the cereal rusts consist of many physiologic races which are intensely specialized in their parasitic behavior. They multiply when in contact with living cells and become dormant or die when the host cells die because they cannot utilize decaying organic matter readily.

About 240 parasitic strains of physiologic races of stem rust of wheat have been discovered, but not more than a dozen are widely prevalent or are important in any one year. These races differ in their ability to attack different varieties of wheat.

It looks like the plant breeders really have a tough job which is far from finished.

Stem rust of wheat does not attack oats. Stem rust of oats does not normally attack wheat.

In addition to stem rust wheat is attacked by leaf rust and stripe rust. Oats has crown rust as well as stem rust.

California pathologists are studying the Basin's rust outbreak. Perhaps eventually there'll be

names for our wheat and oat rust troubles.

We've had some root rot troubles in grain this season, too. These are caused by many species of fungi. Many names are used to describe these troubles, including seedling blight, take all, root rot, basal stem rot, foot rot, snow mould, Victoria blight, Helmenthosporium blight and stem break.

It is very difficult to identify the specific organism or organisms responsible for losses. Losses themselves are not as obvious as those from rust or smut but often are appreciable.

Varietal resistant again is important in root rot control and the plant breeder has a long way yet to go in this field.

Of more importance and of practical significance is the fact that some of these troubles are seed borne to some extent.

It is still a good practice to save seed from only the best fields where plants are vigorous and healthy.

"Plant Diseases" reports that seed of wheat, oats and barley with 10 to 25 per cent infection with Fusarium and Helmenthosporium are fairly common some seasons. Seed lots with 50 per cent infection are not infrequent.

The percentage of seed infected with Helmenthosporium species and Fusarium species is closely associated with percentage germination, stand, amount of seedling blight and number of stunted and deformed plants.

Fusarium and Helmenthosporium species are the most common virulent rootrotting pathogens prevalent in seed. Pre-emergence killing, seedling blight, root rot, basal stem rot and lowered yields are reported to result when such seed is sown.

Treatment with suitable disinfectants places a protective layer of fungicide over seed and gives considerable early season protection against attack by fungi inhabiting the soil.

There is more loss from these root rotting pathogens than many growers realize.

### NO HITCHING POST

**DERBY LINE, Vt. (UPD)** — Arch Bissell, 90, had to leave his horse-drawn sleigh at home and take a taxi to town despite a dislike for "new" contraptions. "There's nothing wrong with my sleigh," he said. "It's just that there's no place to hitch my horse in town."

## Acquisition Of Lakes To Be Scheduled

A general policy for lake acquisition and development as part of its fishery management program has been adopted by the Oregon Game Commission in order to meet a growing need for more angling waters at foothill and valley elevations. The policy as stated will embark the commission on a program to acquire, construct, improve, operate, and maintain such natural or man made lakes for the angling public.

J. H. Van Winkle, chairman, said that lowland lake development is an absolute must in order to meet the growing demand on the fishery resources and specifically to help relieve the tremendous angling pressures exerted on Oregon's salmon and other anadromous fish.

Van Winkle said that the commission does not intend to go into lake building on a grand scale but will build lakes in lowland areas if it is feasible. Existing lakes will receive major attention.

In setting up the development program, Van Winkle said that the following policy factors would be considered:

1. Availability of funds in relation to all other elements of the commission's program.
2. Each of such lakes will be considered individually and upon its own merits.
3. Availability to the public of other lakes in the area.
4. Accessibility of the lake or location under consideration.
5. The ultimate fishing potential as related to costs and the population served.
6. Availability of adequate water supply, roads, parking, and other similar factors.
7. The influence of such lake in relieving the fishing pressure on salmonoid and anadromous fishery resources.

### UNBELIEVERS

**ROCHESTER, N. Y. (UPI)** — Burglars disregarded a sign reading, "Help Yourself, all of the money is in the unlocked cabinet," when they invaded the offices of Donald A. LePine Co., Inc. Instead they hauled away a 350-pound safe which contained only corporation records. The money in the open cabinet was untouched.

## Care Given Vegetables During Growth Determines Suitability For Canning

**OREGON STATE COLLEGE**—Shallow cultivation, adequate moisture and fertilization go a long way to assure top quality vegetables for fresh use and processing. Oregon homemakers were advised this week.

Care given vegetables during growth largely determines the quality of the vegetable to be canned or frozen, say Oregon State College extension specialists.

The following suggestions on care of the garden are given by R. Ralph Clark, extension horticulturist, and tips on harvesting and preserving by Mrs. Ruth Klippstein, extension nutritionist.

A regular work plan in caring for the garden is recommended by Clark. Cultivate the soil to get rid of weeds and maintain surface mulch. Water frequently. Detailed instructions on care and possible yield from 46 garden vegetables are told in Farm and Home Vegetable Garden Bulletin 614, available from county extension agents.

Home gardeners can control most insect pests by proper use of insecticides. Spinach and other leafy vegetables need to be dusted with DDT or other insecticidal dusts or sprays, he says. Rotenone, DDT, CPR, malathion, lindane or methoxychlor help control cabbage worms. Dust tomatoes lightly with DDT or methoxychlor to control flea beetles. Control of other common insects pests are provided in Vegetable Garden Insect Pests, 747, also free on request at county extension offices.

The main advantage in canning at home is to assure your family of tender sweet flavorful foods at peak of quality, Mrs. Klippstein believes. For some families, it may be best to grow vegetables for table use, and watch store ads for canned goods sales. Home gardeners with large surpluses, may want to can or freeze for later winter use.

She suggests these items on harvest procedure.

Pick food in small lots, that can be canned or frozen in a half-day. If food cannot be processed within two hours, refrigerate it, to help keep at highest quality. Pick vegetables when cool in early morning or evening.

Time of harvest is often critical, homemakers are reminded. Corn, cucumbers, snap beans, summer squash, and peas reach their peak, then quickly decline. High sugar content that assures sweetness sometimes changes to starch overnight. Cucumbers in half a day can grow beyond the desired taste for sweet pickles, according to Mrs. Klippstein.

When gardens are at their peak, they should be checked daily for maturity. If it is impossible to handle the produce, pick it anyway and give it to others, the home economist advises, because mature produce should not be left on the vines.

Cucumbers should be picked regularly to prevent overmaturity. Most pickling should be done at mid-summer when the cukes are growing fast. Well-shaped cucumbers, grown in fertile soils and watered regularly, make the best pickles.

All varieties of green and wax beans need to be picked at the size the family enjoys most. If beans are to be frozen, they should be medium size. Immature beans shrivel and overmature beans toughen.

For snowy white cauliflower, tie leaves over the heads to protect them from light. Lack of boron in the soil can also cause darkened cauliflower heads. A dust program is essential for the cabbage family. DDT or rotenone are recommended.

Mrs. Klippstein advises homemakers to investigate the cost and convenience of taking corn to custom canners instead of doing the tedious husking and shelling by hand. For moderate cost, the homemaker can use power equipment at the canner to husk, remove kernels and also can the corn.

Bulletins on freezing and canning vegetables are available at county extension offices.

The tax on gasoline in Utah has climbed from 2½ cents per gallon to six cents per gallon.

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