FS 96
July 1965

# Field Burning Following Grass-Seed Harvest

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Seed crops return more than $30,000,000 to Oregon farmers and seed processors. More than 95% of the bentgrass, chewings and creeping red fescue, and ryegrass seed used in the United States is produced in Oregon. Seed production is concentrated in the Willamette Valley.

For economical seed production, straw must be removed from harvested grass-seed fields for disease, insect, and weed control. This straw is not important in conserving the soil. Fields burned are either perennial seed fields which are not annually tilled, or annual ryegrass fields from which the straw must be removed to make it possible to use grassland drills for seeding without pre-tilling.

Smoke from field burning contributes a minor part to the total air pollution. Field burning is concentrated in a three- to four-week period, usually from late August into early September. During this period, days when atmospheric conditions favor dispersion of smoke can be selected for burning.

## Reasons for burning

Grass-seed fields are burned for the following reasons:

1. Plant disease control. Field burning is necessary for control of several serious diseases for which NO chemical or other method of control is available. There are no economical pesticides for the control of most grass-seed diseases.

2. Weed control. Weeds are a major problem in quality seed production. Commonly used herbicides are not effective when applied to soil covered with crop debris and stubble.

3. Rodent control. Field burning destroys harboring places for rodents which destroy grass-seed stands, and unburned fields provide nesting places for rodents which later move to other fields.

4. Insects. Field burning controls many injurious insects.

5. Fertilizer uses. Organic matter requires nitrogen for decomposition. More nitrogen is required on unburned fields for good seed crops than on burned fields. Potash, phosphorus, calcium, and some minor elements are returned to fields following straw burning.

6. Sod binding. Burning helps overcome so-called sod binding that is common in some grass varieties, thus increasing seed yields.

## Field-burning problems

Seed growers, when field burning, are concerned with property losses from escaped fires, motorist hazards from drifting smoke, and atmospheric pollution from smoke held at low altitudes. These hazards make field burning the most dreaded farm job.

## Precautions when burning

1. It is important that fire permits be obtained from local fire district representatives. These fire permits list the precautions which must be followed to minimize property losses from burning.

2. Fields should not be burned when atmospheric conditions do not favor rapid dispersion of smoke. Information on atmospheric conditions can be obtained by listening to timely radio releases by the United States Weather Bureau.

3. When possible, fields should be burned soon after harvest. Early after-harvest burning minimizes smoke from burning green regrowth in the field. Burning in the early afternoon usually provides better smoke dispersion than night burning. Time of burning is usually specified by the burning permit.

4. Special precautions must be taken when fields are burned near highways. Burning should be delayed until prevailing winds blow smoke away from highways. Should smoke create a highway driving hazard, warning systems should be used.

This is one of a series of *Fact Sheets* reporting Cooperative Extension work in agriculture and home economics, F. E. Price, director. Printed and distributed in furtherance of Acts of Congress of May 8 and June 30, 1914. Oregon State University, Oregon counties, and U. S. Department of Agriculture cooperating.