UNIVERSITY of CALIFORNIA COOPERATIVE EXTENSION FRESNO COUNTY

SEED CROP NOTES

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Rain on Alfalfa Seed Calls for Care in Harvesting
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Rain on Alfalfa Seed Calls for Care in Harvesting

Rain on alfalfa seed fields will cause some damage to mature seed, but much of the potential for damaged seed can be avoided by following preventive steps in subsequent harvesting operations. These steps begin with desiccation of the crop prior to harvest.

Rain, dew or high humidity causes alfalfa pods and seeds to swell. When they dry, the pods shrink and snap open--exposing seed, some of which fall to the ground and are lost. Under wet conditions, application of desiccants on these exposed seeds in the pod will reduce germination. Experiments have shown that dinitro and oil applied on seed which was dry had little effect on germination. However, when the same materials were applied to wet or moist seed, a severe reduction in germination resulted.

Seed that has been wet over a period of time, such as caused by rain, becomes quite tender on drying. In this condition, the seed coat is subject to cracking during harvest and cracked seed results in poor germination.

Cracking of the seed coat occurs principally in the combine cylinder and varies according to cylinder speed. Cracked seed damage can be reduced by reducing the cylinder speed in stages of about 200 feet per minute peripheral speed until cracking is reduced to that which occurred prior to the rain.

Studies indicate that cylinder speed can be reduced below the normal 4500 to 5000 feet per minute without sacrificing thoroughness of threshing. In some cases ground speed of the harvester will have to be reduced so that the straw can be handled at the slower cylinder speed.

Timing Desiccation

Spray curing of alfalfa seed stands needs to be timed correctly to maximize yields. If a crop is defoliated or desiccated prematurely, when there are many green pods with immature seed, a reduction in yield can be expected. It takes between 20 and 28 days, depending on temperature, to develop mature seed after pollination. About 14 days is required after green pods show.

One-Way Harvesting

Alfalfa seed fields with plants lodged in one direction (generally from north to south) can profitably be harvested in one direction going against the lodged plants (traveling

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from south to north). When this is done it is easier to pick up all of the seed and usually results in fewer machine stops. The cost of "dead heading" one direction can easily be gained with the increased harvest efficiency. One-way harvesting can also pay off with a light amount of plant growth. In this case, you can take advantage of any breeze by clipping into the wind to assist in picking up all of the plant material possible. Field tests in Fresno County during 1974-76 indicated a gain of about 24 pounds of seed per acre by using one-way harvesting instead of both directions.

Cover Your Seed Hauling Trucks

Alfalfa seed scattered along roads at harvest time are responsible for some early chalcid buildup, increases costs for roadside weed control and reduces the growers' seed pay-load before it reaches a cleaning plant.

Trucks and trailers transporting seed from the field to processing plants should be made seed-tight and covered to prevent scattering seed. This will help eliminate volunteer plants along roadsides.

Certified Seed Notes

Enclosed is your copy of the July issue of Certified Seed Notes. Please make your application for foundation seed as soon as possible.

Sincerely,

Bob Sheesley

Bob Sheesley
Farm Advisor

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