PASTURE SEED CROPS

Most of the seed for new pasture grass and legume varieties is grown under contract in the northwestern and southwestern United States. There, harvesting weather is good, and irrigation is used to obtain high yields. Growers in the region have also developed new technology for seed production, harvesting, processing, and marketing. Seed production by qualified growers lessens the danger of reduced quality or loss of new variety seeds.

You can, however, harvest your own seed. When excess spring forage is available, you can use some acreage to harvest a seed crop. Because there is usually a shortage of pasture crop seeds, prices are high; thus, a good seed crop could be an extra source of income, as well as providing you and your neighbors with a supply of well adapted pasture forage varieties.

Production of Pasture Crop Seed

If you decide to harvest seed from your pastures or from special seed plots, remove the livestock early enough to give the plants time to form seed heads. Grazing until this time is both desirable and profitable. If not grazed down or cut for hay, the plants will lodge and make harvesting much more difficult. The maturity date of the grass or legume will determine when to remove the livestock.

Winter grass seed crops should be fertilized with nitrogen in the fall and early spring to increase seed yields. Summer grasses should be fertilized with nitrogen in the late spring. Legumes should be fertilized with the needed phosphorus, potassium, lime, and possibly boron in the fall or early spring. Legume seed crops should not be fertilized with nitrogen.

Plant in weed-free areas if possible. You can control weeds in grasses with herbicides but this will injure most legumes. Check for specific recommendations.

Select forage crop varieties that are resistant to the diseases prevalent in your area. It is very difficult to control plant diseases once they start. Crops harvested for seed are more susceptible to disease than grazed crops because of forage density and the longer growing season. You can control insects with timely application of insecticides. Be sure to spray in the late afternoon or evening to reduce bee losses.

Most legumes, except lespedeza and hairy vetch, are cross pollinated. The use of bees can greatly increase the seed production of most legumes, especially alfalfa and clover. More than 70 different crops require bees for production or show an increase in seed production as a result of pollination of honey bees, alkali bees, or leaf cutter bees. Alfalfa and red clover which have severe pollination problems should be pollinated by bees to increase their seed yields.

The main threat to bees and other pollinating insects is the use of organic phosphates and carbamates used to replace DDT which was only moderately toxic to bees. Spraying will also kill beneficial predatory or parasitic insects, so use insecticides with care and only when actually needed.

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Harvesting Pasture Crop Seeds

Most seed crops will reach their highest quality at full maturity. However, many legumes and grasses produce flowers over a long period of time, making the selection of harvest time very difficult. Try to harvest when the greatest amount of mature seed is present and before the plants lodge. It may be desirable to spray the plants with certain plant desiccants to kill the leaves and hasten seed maturity.

Seed can be combined directly or from the windrow. When both mature and immature seed are present, it is best to cut and windrow the crop to permit drying before combining. Seeds of some crops, such as Kentucky bluegrass and native grass species, are harvested with a seed stripper.

Clean the combine before you use it. Tape up all the small holes in the combine to prevent loss of small seed. For arrowleaf clover and many other legumes, set the cylinder about 1/8 inch from the concaves. Use a cylinder tip speed of 5,000 to 6,000 feet per minute. This can be calculated from the diameter of the cylinder and its revolutions per minute (RPM). Adjust the screens to fit the seed size and close the tailing's elevator screen. Use low air volume and a low forward combine speed to allow time for the seed to be separated from the head. If you try to get the seed too clean, much of it will be lost. Let the seed cleaner remove the trash after the seed is dried.

Processing and Storage of Pasture Crop Seeds

Some grass and legume seeds must be run through a hammermill or a similar machine to remove seed appendages before they can be cleaned. The seed cleaner screens should be set to remove weed seeds and trash. The seeds may have to be cleaned a second time so that different sizes of weed seeds can be removed. Noxious weed seeds that would prevent seed sales should receive special attention.

If needed, the cleaned seed should be treated with a fungicide or insecticide to control seed-borne diseases or weevil infestations. Rye seed, for example is very susceptible to weevils. Germination tests should be made by an approved seed laboratory before the seed is sold or planted.

Seed should be stored at about 10 to 12 percent moisture. The higher the storage temperature and relative humidity, the faster the seed will deteriorate. As a rule of thumb, storage will generally be safe when the temperature (F) plus percent humidity does not exceed 100. If there are indications that storage conditions have not been satisfactory, the seed should be tested again before it is planted.

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