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Contact your local Natural Resources Conservation Service Office at the USDA Service Center for more information or visit the web at: <http://Plant-Materials.nrcs.usda.gov> to find more information on solving conservation problems using plants.

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Helping People Help the Land

## Determining Seed Fill *when making field collections*

### When is the right time to harvest seed?

The right day to harvest is the one when the largest amount of seed is ripe or filled. However, when collecting seed from more than one species it is not always possible to harvest seed in one day. This makes it necessary to start harvesting before all seed is mature.

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## DETERMINING SEED FILL IN GRASSES

Conservation plant information by the  
James E. "Bud" Smith Plant Materials Center  
Knox City, Texas

Heading and flowering of many range and pasture grasses generally does not occur at one time but over a long period of time. In general, the interval between bloom and seed maturity is about 4 weeks. Cool moist weather may lengthen the interval while hot dry weather may shorten it.

Keep in mind that flowering starts at the top of the head and moves downward. This always places the most mature seed at the top of the head.

Stages of maturity in grass seed are the same as for any other grain: milk, soft dough, hard dough and vitreous or mature. The optimum time for seed harvest is the hard dough and mature stage. Seed harvested in this stage tend to be filled, will survive the curing process, and will germinate when planted. Seed harvested in the milk or soft-dough stage tend to be not filled, will shrivel as it cures, and generally will fail to germinate when planted.

Some shattering of seed will always occurs before harvest, but for a few days the rate of shattering is matched by the amount of seed ripening. When this stage is past, the rate of shattering exceeds the rate of new seed ripening. This means that at times some heads will be full of ripe seed, while early producing heads will have very few seeds due to shattering, and late producing heads will have just started flowering.

This makes it important that careful daily inspections be made during the flowering period to decide when most of the heads contain seed in the hard-dough and mature stage.

## Field Methods *of determining grass seed fill*

Use method that most closely resembles the type species you are collecting.



**Pinching base of a fertile, sessile spikelet of little bluestem**



**Rubbing out spikelets of lovegrass in palm of hand**



**Pressing across center of a fertile floret of switchgrass**



**Cutting across center of buffalograss bur with a knife**



**Pinching base of several spikelets in a single spike of sideoats grama**