

Equipment Is Key to Drought Harvest

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Harvest conditions in fields this fall range from full crops to a number, especially soybeans, affected by severe drought conditions. Equipment usable for harvesting drought damaged crops depends on end use of the commodity, moisture content of the crop and equipment available to use (owned, leased, or custom).

Plant moisture content in most cases has already dropped below that suitable for the ensiling process (60 to 70 percent). Forage material may still be collected in bales or stacks if plant material is dry enough for storage without excess spoilage.

Have your intended use or market for harvested feed well in mind before pursuing forage harvest. Harvesting a silage or forage crop with no definite plans for feeding or local sale can be costly. Crop producers can often be caught a year after a drought with poor quality forage and no plans to use it.

Recognize that harvesting a drought damaged crop will be more stressful on the operator due to higher field variability. Don't be tempted into short cuts or using equipment in a manner for which it was never intended. Expect variable crop conditions even within individual fields.

Grain harvest

If ear diameter is smaller than normal, stripper plates will need to be moved closer together to avoid excessive shelling on the snapping rolls. This will break off more stalks, increasing the load on the processing unit. Stripper plate spacing on newer combines may be adjustable from the operator's station and can ease adjustment if sizable areas of a field have different ear size. Beware of making numerous on-the-go adjustments or trying to evaluate shelling on the stalk rolls from the cab. At least one cornhead has spring-loaded stripper plates to adjust spacing on-the-go.

If ears are of non-uniform size and shape, adjustment of the threshing mechanism will be a compromise between adequate separation from the cob and acceptable grain breakage level. Concave clearance should be narrow enough to thresh grain from ears. Adjustment for small ears will break larger cobs and over load the cleaning shoe. Chaffer, sieve, and fan adjustment becomes more critical. Grain may be fragile and more susceptible to damage. Ideally, threshing should result in whole but battered cobs exiting the separator.

Soybean threshing needs to be just aggressive enough to remove beans from pods. Beans in drought-stressed fields this fall may be smaller than usual. If beans are small, air flow may need to be reduced in the cleaning shoe and the openings in chaffer and sieve screens reduced to maintain air speed, yet allow beans to fall through. More pods will be close to the ground if plant population has been reduced, so it is essential to keep the cutterbar low. The front drum of the feeder should be low enough so that the chain just clears the floor of the feeder house. If

plants are shorter, smaller clearances may be needed between reel, cutterbar, auger, and feed conveyor chain to make sure stalks are feeding through the platform.

Expect to spend more time checking grain loss. Traveling fast enough to keep the combine loaded will improve grain quality, however a greater percentage of material other than grain moving through the combine may increase separation losses.

Forage harvest

A common mistake is to underestimate the moisture content of drought damaged crop. Check moisture content before baling or stacking. Operation of harvesting equipment will generally be similar to that used in a normal crop with a few exceptions. Check your owner's/operator's manual for useful tips (for example using hay harvest equipment to harvest cornstalks or soybean straw). Your dealer is another source of information.

Windrowers, rakes, balers, and stackers have all been used to harvest corn. Expect that operation of conventional hay harvest equipment in cornstalks may be more difficult or at least require adjustment and some experimentation. Cornstalks are larger and may be more difficult to package. The potential variability of stalk diameter and length will put a premium on proper adjustment. Some equipment may not work in some conditions. Expect more wear, especially on cutting components, than when harvesting hay.

A major objective is to get the stalks dry enough to store. Allow the crop to field dry for much of the moisture removal. Equipment should aggressively shred stalks to promote drying and present smaller pieces for easier packaging. Flail shredding may do this easier than conditioning. If using a conditioner, consider tightening the roll spacing and slowing travel speed for more aggressive action. Stalks that are damp can be hard to start and they tend to wrap in baler belts.