Disaster Recovery: Harvesting corn and soybeans

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Weather and other factors beyond equipment operator control deal harvest challenges. Accept the effects of adverse weather and adjust your equipment, speed and attitude accordingly. The pressures of the harvest and operation of equipment in a different manner will make it particularly important that you think before acting. Familiarize yourself with safety procedures contained in your operator’s manual.

Before beginning harvest, assess individual field situations. If discrete areas within fields have drier grain, consider the possibility of selectively harvesting those areas first if drying and handling systems are compatible.

Many adjustments will be a compromise between limiting harvest losses to acceptable levels and maintaining grain quality. Check losses periodically in the field to determine final settings. Every two kernels of corn or four soybeans per square foot left on the ground equal one bushel per acre field loss. A goal for good field conditions is to keep losses under one bushel per acre. Use your operator’s manual and information from Pm-574, Profitable Corn Harvesting, and Pm-573, Profitable Soybean Harvesting, available at your county extension office.

The balance between quality and harvest loss of a wetter than normal crop is different for a livestock feeder than a cash grain producer. If corn is to be locally fed by the producer before next spring and can be dried to an acceptable storage moisture for overwinter, more cob pieces and fines screened out at the farmstead may be acceptable to limit harvest losses. **Corn** Smaller than normal ears will cause excessive stalk roll shelling. Move stripper plates closer together. This will break off more stalks increasing the load on the separator. A larger proportion of straw to grain will already be going into the combine. Slow combine travel speed as needed to avoid overloading the separator.

If ears are 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 rapidly load the cleaning shoe. Chaffer, sieve and fan adjustment become more critical. Lighter grain may require a reduction in fan speed and chaffer and sieve openings. Wetter than normal grain and soft cobs may require increased cylinder/rotor speed. Because of potential problems with damage and storage, use only enough speed to keep mechanical harvest losses to acceptable levels. **Soybeans** Most soybean harvest losses are at the header. Later planted, short soybeans will require extra attention to check adjustment of floating
cutterbars and header height controls. Make sure shorter stalks are feeding through the grain platform and feeder house into the threshing area. Smaller clearances may be needed between reel and cutterbar and between auger and feeder conveyor chain. To adjust clearance between reel pick-up tines and a floating cutterbar, rest the cutterbar on a 4 inch by 4 inch block and adjust the reel so that tines come no closer than two inches to the cutterbar. The front drum on the feeder should be low enough so that the chain just clears the floor of the feeder house. If soybeans are smaller, fan speed may need to be decreased and chaffer and sieve openings narrowed in the cleaning shoe to avoid excess losses.

Mud
Traction can be difficult in wet soils. Check the condition of tires and inflation pressures. Review the operator’s manual sections on tires and traction. Check with the dealer or manufacturer on suggested methods of pulling the combine out of mud. Some operators raise the head when drive wheels begin to slip excessively so that the front axle is accessible. Check with the dealer or manufacturer before adding tracks or different tire sizes. If using tracks, tension may need to be adjusted with soil conditions.