



OBSERVATION	PROBABLE CAUSE	RECOMMENDED ACTION
Musty or spoiled grain odor.	Heating moisture accumulation in one spot.	Run the fan to cool any hot spots. If damage is severe, remove grain.
Hard layer or core grain below.	High moisture or spoiled, caked grain mass. Compacted mass blocking airflow.	Run aeration or drying fans. Cool and dry if airflow is adequate otherwise unload to remove all spoiled grain.
Warm grain below the top surface.	Moisture content too high.	Run fan regardless of weather conditions until exhaust air temperature equals the desired grain temperature.
Surface grain wet or slimy. Grain is sticking or frozen together.	Early signs of moisture migration.	Run aeration fan. Cool grain until exhaust temperatures equal desired grain temperatures.
Hard surface crust, caked, and blocking airflow. Possibly strong enough to support a man.	Severe moisture migration and condensation in the top surface.	Remove the spoiled layer. Wear a dust mask to filter mold spores and follow safety harness procedures. Run fan to cool grain after spoilage.
Condensation under roof.	Warm grain in cold weather, severe convection circulation and moisture migration.	Aerate until exhaust air temperature equals outdoor air temperature at beginning of aeration cycle.
Wet or spoiled grain directly under fill cap, or on surface outside of center point.	Leaky roof cap, gravity spout, bolt, or fixture that funnels condensation flow.	Check fill cap seal, gravity spout, and caulking around roof inlets and joints. Also, check grain heat and under roof surface at night for water accumulation.
No airflow through grain with aeration fan running.	Moldy caked grain mass blocking airflow. Possible moldy grain layer above aeration duct or floor.	Determine location and scope of spoilage. Unload storage and market or re-bin good grain.
White dust visible whenever grain is stirred.	Mold on grain but not sufficient spoilage to seal top surface.	Wear a dust mask and safety harness when working in grain. Evaluate grain condition throughout bin where possible. Keep in mind grain has deteriorated to some degree.
Cooling time required much longer than usual.	Increased fines in grain resisting in reduction airflow: fines can cause airflow resistance to increase as much as 2-4 times as much as clean grain.	Run fan for a longer period of time. Operate fan until grain and exhaust air temp readings indicate grain is at required temperature, regardless of fan time.
Exhaust air temperature in center of bin warmer than that on outside.	Fine material accumulation in storage center reducing airflow; airflow through center reduced compared to clean grain around outside.	Run fan for a sufficient time to cool the center irrespective of the outside grain temperature. Draw down the bin center to remove fines and decrease grain depth for easier air passage.
Unknown grain conditions in the bin center.	Too deep to probe; bin too full to access, no temperature sensing cables installed.	Withdraw some grain from all bins to feed or market. Observe grain removed from the center in each withdrawal. Eliminate any storage filled above full level.