



SEPTEMBER 2006

Sunflower harvest is approaching. The above-average heat units accumulated this season will move this sunflower crop to maturity quickly. A normal frost date should not cause significant problems for the majority of the sunflower crop.

Some growers chose to contract two or more different varieties of sunflowers this year. (Example: Extremes vs. XL hybrids) **It is critical that these hybrid types are kept separate.** Mixing hybrid types will cause problems when it comes to marketing your sunflowers this fall.

Desiccation

Many areas will have mature sunflowers before a killing frost occurs. Fall harvest days will be at a premium with all the late crops to harvest. Blackbirds, sclerotinia head rot and wind can take a toll on a standing mature crop. Desiccation through chemical means can be a useful tool. Important items to consider are: 1. Maturity - sunflower heads should be yellow on the backside of the head with the bracts turning brown. Seed moisture should be below 35%. 2. Warmer temperatures enhance the chemicals performance. 3. Labeled products include: Gramoxone Max at 1 to 1.3 pts per acre and Drexel Defol 1 to 2 gal per acre. A minimum of 5 gallons of water per acre is required; 10 gallons per acre will work much better. These are contact-burn herbicides, so good coverage is important.

Seed Coat Scuffing

Scuffing occurs when sunflowers are harvested at higher moisture levels. **It is very important to keep scuffing to a minimum.** Methods of prevention include keeping cylinder speeds as slow as possible, maintaining a concave setting as wide as possible and harvesting when moisture levels and conditions are conducive to a minimal amount of scuffing.

Insect Damage

Field margins generally have higher insect damage and may need to be stored separately. The fields that have not been sprayed and have high levels of insect damage should be segregated from good quality seeds. Contract specifications will be in effect.

Dark Roast

Some areas this year may experience sclerotinia head rot (white mold), which can cause dark roast. The sunflower heads may possibly fall off before harvest thus minimizing dark count readings. If you have differences between hybrids or fields, you may want to consider segregating the crop in order to avoid lowering the quality on your entire crop versus just a portion. Contract specifications will be in effect.

Soybeans and Corn

Each year some producers are surprised at our objection to soybeans and corn. Soybeans and corn are very difficult to remove from kernel products. Once roasted, they become very hard and break consumers' teeth, which results in lawsuits. Please clean your harvesters as much as possible, so that we do not have to reject your loads. Also, clean your trucks and make sure the semi which pulls into your yard is clean before loading it. These suggestions apply to oil sunflowers as well. Corn and bean mixtures will limit your marketing options. Contract specifications only allow a maximum of **four** pieces of corn or soybeans per pound.

Cocklebur

Cockleburs are a perennial problem. Your contract allows four cockleburs per pound. If you have a cocklebur problem, please cut above the plants or cut around the patches and harvest them separately. **Samples exceeding four burrs per pound may be rejected.** Note weed problems on your field maps and address the cocklebur problem in your small grains rotation.

Moisture Content

Sunflowers delivered in excess of 10.0% moisture will be docked 0.2% for each 0.1% or fraction thereof moisture over 10.0%. Sunflower delivered over 11.0% moisture will be accepted at the buyer's option and will be subject to drying charges in addition to the moisture dockage. Sunflowers may not be accepted over 18% moisture. Care must be exercised when drying sunflower. High drying temperatures can cause kernels to become steamed, wrinkled or even scorched, contributing to a high dark count percentage. Fire is a constant threat when heat is used to dry sunflower seeds. Sunflower should be kept moving, debris and fines prevented from accumulating and the dryer should be drawing clean air. That means sunflower seed drying is a full-time job. According to SDSU Extension Ag. Engineer Robert Durland, sunflowers intended for long-term storage should be no higher than 8-10% moisture. With aeration, sunflower can be held for short terms at 12%. The aeration fans should deliver from 1/20 to 1 cfm/CWT of sunflower. The peak should be flattened to avoid the accumulation of heat and moisture. Bins should be checked every two weeks for moisture crusting and temperature changes which are indicators of insect or mold problems. Crusting or mold problems can contribute significantly to high dark counts.

Harvest Losses

Harvest losses are always a concern and should be minimized. Growers should begin harvesting when the threshed sample is in the high teens. **Moisture contents of 14-15% are best for minimizing shattering losses and maintaining seed size.** **The seed loss usually occurs around the outside of the head thus reducing your large seed percentage.** Some contracts offered this spring were based on seed size.

Check your operator's manual for the proper sunflower settings. According to Vern Hofman, NDSU Extension Ag. Engineer, there are three general rules to keep in mind.

1. Maintain ground travel at 3-5 mph. As the moisture goes down, so must traveling speeds. Faster speeds work well only at higher moisture.
2. Keep cylinder speeds at 300-325 rpm (20-22" diameter cylinder). When moisture is 10% or less, set concave wide open. Use narrower settings only when filled seeds are left in threshed heads. Higher cylinder speeds break up the seeds. Larger diameter cylinders will require even lower RPM settings.
3. Use enough wind to keep the trash floating over the sieves. Set the upper sieve ½-5/8" and the lower small enough to keep dockage at 5% or less. Empty seeds are dockage and should be left in the field.

Millet and Oil Sunflower

Please remember we also purchase oil sunflowers and white proso millet for our bird food and hulling operations. If you are marketing these products, give us a call for a bid.

Combine Adjustment Indicators

Problems	Possible Causes
Partially threshed heads on ground	Concave spacing too wide
Excessive tailings	Airflow too low; over-threshing at cylinder or rotor; chaffer openings too narrow
Trash in hopper bin	Over-threshing; cylinder or rotor speed too high; concave too tight; fan too low; sieve too wide
Broken or crushed heads	High cylinder or rotor speeds; narrow concave spacing
Crushed seed with hull intact	Concave spacing too tight
Dehulled or broken seeds	High cylinder or rotor speeds; excessive returns
Unthreshed heads on ground	Poor gathering at the header
Seeds being thrown out back	Slow down machine and check air flow rate

PLEASE KEEP QUALITY IN MIND WHEN HARVESTING YOUR SUNFLOWER!