

ADJUST SUNFLOWER PLANTING TO MEET CROP GOALS

SITUATION

Sunflowers are very adaptable and can be grown under different environmental and soil conditions. Several university [studies](#) illustrate sunflowers planted at varying populations, depending on the environment, can result in similar yields. When determining [planting populations](#), consider environmental, agronomic and marketing factors to maximize yield and profit potential.

FACTORS TO CONSIDER

- Annual rainfall and subsoil moisture
- Disease and insect threats
- Planting dates
- Harvesting options
- Market demands

ACTION PLAN

- **Consider typical rainfall totals.** Sunflowers can tolerate drought under the right circumstances. Reduced populations of 15,000 plants per acre narrowly aligned at 12-inch spacing are better equipped to handle seasonal dry spells and low subsoil moisture conditions. Conversely, fields in heavy rainfall areas are able to support 30,000 sunflower plants per acre.
- **Factor insect threats into population size.** Risks of certain sunflower diseases and destructive insects can vary from farm to farm. Under wet conditions, plants in high-population fields containing high levels of nutrients invite more disease. [Longhorned beetles](#) also do more damage in high populations and can severely damage stalks and make plants more susceptible to lodging. However, sunflowers planted at lower populations are able to develop robust stems that help reduce lodging. Keep in mind that [cutworms](#) tend to target sunflowers planted in lower populations.
- **Schedule planting dates strategically.** Planting earlier in the season allows for more in-field drydown. However, if planting late or replanting after June 10 (standard cutoff date in the northern Plains), growers can increase population sizes to obtain smaller individual heads, which dry down faster than larger heads.
- **Compensate for drying facility shortages, if necessary.** Growers without sunflower drying facilities should plant higher populations, resulting in smaller heads, faster drydown and, ultimately, drier seeds at harvest.
- **Factor in market segment.** If the crop will be sold into the confection or dehull non-oilseed markets that require a larger seed size, plant for smaller harvested population of around 15,000 plants per acre. Meanwhile, population totals should be noticeably higher if planting for the oilseed market. Bear in mind that growers should plant a population rate [10 percent to 15 percent higher than the desired final crop size](#) (if using untreated seed).



There is no one-size-fits-all philosophy to draw from when determining sunflower populations.

SUMMARY

Planting population is one of the most controllable aspects of sunflower farming. Respond to your operation's environmental demands and market goals accordingly. For more information, contact your local Mycogen Seeds customer agronomist or trusted agronomic adviser.

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