

# Sunflower

## Growing Guide



Pictures Courtesy of JE Batchelor & Partners, Kent - Grown for the United Oilseeds Marketing Pool 2024, yielding 2 tonnes per hectare.

### Area Suitable for Sunflowers

No sunflower seed is currently commercially crushed in the UK. We import around 60,000 tonnes annually which is largely used in the bakery, bird seed and pet sectors. Most UK grown crop is destined for the bird seed market. It is estimated that a maximum of 1,500 tonnes of seed is produced in the UK.

### Soil Type

Sunflowers can be grown on almost any soil type, but ideally place on free draining soils that warm up quickly in the spring. The optimum pH is 6 to 7.5. Soils with a low pH should be avoided. Sunflowers perform very well on potash rich clay soils and clay loam soils.

### Cultivations

Sunflowers are relatively drought tolerant as they root extensively but they are very sensitive to compaction and waterlogging. Remediate any compacted areas, which are often at cultivation depth. Conditions that give good firm seed/moist soil contact will help even and fast emergence.

### Nutrition

Sunflowers have a low requirement for applied fertiliser. Mainten-

nance applications of 40-60 kg P and K at drilling is normally sufficient, depending on indices and soil characteristics. High levels of fertility can result in over production of vegetative growth and care should be taken on soils with high organic matter or large nitrogen residues. Following cereals, the requirement is normally no higher than 50-70 kg N/ha. depending on soil status. Sunflowers are particularly susceptible to boron deficiency, which can lead to infertility especially on calcareous or sandy soils. Where deficiency is likely apply 450g B/ha. as a foliar spray at bud formation.

### Sowing Date

Sunflowers can normally be sown 3-5cm depth from mid-April. Soil temperatures at 10cm should be at least 7 °C and ideally on a rising pattern. Sunflowers are best suited to areas that will accumulate at least 1400 day degrees over a base of 6 °C. Typically sowing in mid – late April will mean that they can be harvested in mid to late September.

### Sowing Rate

Sunflowers are drilled in the UK at 110,000 seeds per hectare to achieve a population of 100,000 plants/ha. on 25-35cm row widths. This plant population is higher than that used on the continent because this ensures that the plants produce small hea-

ds which dry down quicker at harvest. Precision drills have shown improved plant spacings along the row and this ensures evenness of maturity at harvest.

## Weed Control

The use of glyphosate pre-drilling will reduce the requirement for further weed control. However, sunflowers are sensitive to high levels of weeds during early growth and therefore where the site has a history of high spring weed populations first create a stale seedbed then consider further herbicide options. Approved formulations of pendimethalin can be applied pre-emergence +/- Emerger (aclonifen) which can be used at growers own risk under an EAMU. Post emergence control of grassweeds can be undertaken with Fusilade (fluazifop-P-butyl) or Centurian Max (clethodim) can be used under an EAMU for blackgrass, again at growers risk. Read and adhere to label instructions and use pesticides carefully.

## Diseases

Sunflowers should not be grown closer than 1 in 4 years to avoid build up of soil-borne diseases, most importantly Sclerotinia, which can cause whole plant death in sunflowers. Be careful when placing in the same rotation of other highly susceptible crops such as oilseed rape and avoid sites where you have seen active Sclerotinia in the last 5 to 10 years. Grey mould and head rots can affect the crop late in the season and are favoured by mild humid conditions.

## Pests

During establishment the crop may need slug pelleting if conditions are damp and favourable for slug activity. Pigeons may become a problem, particularly if fields are surrounded by woodland. Once the crop has 2 cotyledons then it rarely needs any further protection. Hares and rabbits can be a problem and deterrents should be applied on sites where populations are high.

## Harvesting

Harvest occurs when seed moisture is at 15-20% dry matter normally in the middle of September. The use of a corn header or sunflower adaption to the combine will reduce the risk of losses and it is recommended growers talk to their combine manufacturer about options. The combine should be adjusted according to the manufact-

urers instructions, but typical settings are:

**Drum speed 400-600 rpm, Concave - wide open, Sieve 10-12mm**

The tines on the combine reel should be removed or covered to prevent impaling the heads on the tines. The main objective during combining is to cut all the heads and leave as much stalk in the field as possible which can be disced in after combining. UK yields are variable with an expectation of 1 - 2.5 t/ha. depending on conditions.

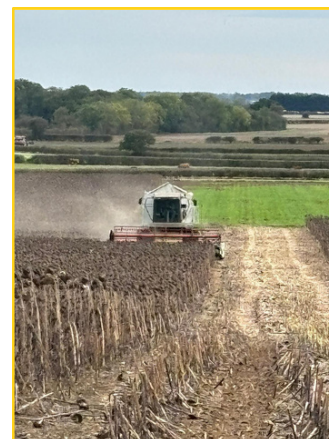
## Crop Drying

The seed can be successfully dried on cold air drying floors down to 15% moisture. Drying down to 9% for long term storage and marketing should be done using low volumes of heat, similar to OSR. The seed is surrounded by a lint layer that can be rubbed off in the drying process which, if taken into the unprotected intake of a continuous drier there is risk of fire. The drier should always be monitored whilst the seed is being dried. Once dried the heap should be left to stabilise for 7 days and then the moisture tested again and more drying undertaken if necessary.

## Marketing

Seed is generally purchased on a contract subject to sample basis. In continental Europe crop values trade at a level around that of oilseed rape but this is for a well-developed commercial crushing market.

## Sunflower Harvest 18th October 2024



*"Fantastic crop for bees & ladybirds. A low input crop with only pre-emergence herbicide, a little nutrition & pre-harvest dessication needed."*



## Time to join the UK's only Sunflower Marketing Pool with United Oilseeds?

Speak to your Area Manager or contact the team using the details below:



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Pictures & comments courtesy of Richard Tagg, I M Tagg, Lincolnshire.