



Technical Update 27

Harvesting Combining Peas

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Great care must be taken in harvesting peas as a premium is often available for high quality produce. Quality can be affected by wet weather at harvest causing staining in a lodged crop, and if destined for the packet trade, chip shop or export value is reduced if pea seed is "bleached" by the sun. If peas are left in the field too long until moisture content is 12% MC (or if they are over-dried), the crop may be unsuitable for human consumption, the percentage of 'non-soakers' increases and the seed may split and crack. Peas for micronising for pet food must also have a good blue/green colour.

Yield is lost if peas are left too long in the field when shelling out and pod shatter occurs, therefore timely harvesting is essential.

CULTURAL AID

Rolling is essential to depress stones and break down clods soon after drilling. If this is not possible, rolling can be carried out after the crop is 5 cm high (plants may suffer damage before this stage). However this is not good practice since leaf damage and reduced leaf wax will delay post-emergence spraying.

COMBINING

Peas are normally direct harvested with a cereal combine with or without the aid of a desiccant.

Most varieties of peas lodge to some degree before harvest although semi-leafless and stiff strawed types are less prone to this. It is easier to harvest long strawed varieties, and an even, adequate plant stand is an advantage.

- Combine in the opposite direction to lodging.
- Lifting fingers are essential at least one every fourth position.
- Adjustments may be necessary to lower the cutter bar close to the soil surface.
- The reel is positioned slightly forward of the cutter bar and speed adjusted to lift the crop onto it.
- Combine settings - peas are easy to thresh so drum speed should be set to a low setting as per manufacturers recommendation.
- The concave should be opened up to reduce time the crop is in contact with the drum. Use high fan setting
- The appropriate screen size for peas must be used.



Quality is reduced by soil contamination. Do not combine when there is surface moisture on the haulm, or when the soil is wet, and make sure the combine is clean.

Combining Stage

Peas can be combined when moisture content of the mature seed is 18% MC and higher quality seed and human consumption is often achieved by early combining at 18-20% MC followed by careful drying. This avoids damage to the seedcoat, and a higher percentage of non-soakers. Do not leave peas in the field until 12% MC. If peas are required for animal feed they can be combined at moisture

contents much lower than this and drying costs are reduced. At low moistures the seed may split, but split peas are still acceptable for animal feed.

Wherever possible, crops should be direct combined without pre-harvest desiccation. This is only practicable in a dry harvest, in a crop which is free from weeds and dying back evenly.

DESICCATION



Involves application of a chemical to prevent further growth of crop and weeds. The desiccant evens up maturity and removes green weed growth so that combining can take place sooner, reducing the risk of bad weather intervening.

Reglone (diquat) is the most widely used desiccant. Application rate: 2 to 3 l/ha in not less than 200 l/ha volume. It is rainfast in 15 minutes. Use the higher rate in very weedy and thick crops. It effectively kills weeds and crop, allowing combining to start 7 - 10 days after application, depending on weather conditions. It can be used on all crops for seed, animal feed and human consumption. Wetters can be added (but before spraying consult the processor

in the case of crops grown for human consumption) for dense weeds and are needed to desiccate volunteer oilseed rape foliage.

Challenge (glufosinate-ammonium), another desiccant, is used at the same crop stage as Reglone. Application rate is 3.0 l/ha in not less than 200 l/ha water volume. It is rainfast in 6 hours. It is slower to act than Reglone, allow 10 - 14 days before the crop is fit to combine. It may be used for crops for human consumption but should not be used for pea seed crops.

Desiccation Stage

Moisture content of the pea seed should have fallen to 40 - 45%. At this stage the seed is mature. The crop has turned yellow, lowest pods are nearly brown, dry, "parchment" stage, those higher up are yellow. The seed within the pods are easily detached from their stalks and feel rubbery. The desiccant must not be used too early; yields may be reduced and quality affected.

N.B. Glyphosate should not be used as a desiccant at the desiccation stage in peas. It is used pre-harvest of peas at a later stage, when seed is below 30% MC. It is applied at 4 l/ha for eradication of perennial grasses and broad-leaved weeds. A minimum of 7 days should elapse between application and harvest to enable the material to be fully effective. In some circumstances there may be sufficient weed kill to aid harvesting. Seed crops must not be treated.

Moisture Content

Determination of moisture content is a useful means of assessment of desiccation stage (40 - 45%), combining stage (25% or less), grain storage (14 - 16%) and long term storage 14% MC. Quality standards are generally based on 14% MC and 2% impurities and deductions are usually made where the combined level is higher than this. Drying is carried out on the farm or by the merchant and a reduction may be made by the latter when moisture content exceeds 16%.

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