



Technical Update 45

Vining Pea - sowing

January 2021

ROTATION

It is recommended that the rotation carries no more than a single crop of the following group every five years: peas, field or broad beans, green beans and lupins. This four-year break is the minimum recommended without increasing the risk of building up persistent soil-borne pests and diseases. A predictive test for the presence of soil-borne root infecting diseases is available from PGRO and details are available on request. It would be advisable to lengthen the rotation to 7 or 8 years in vining pea rotations with foot rot history. The inclusion of some legume species in cover crop mixtures prior to vining peas is possible. No negative effects of foot rot development have been observed using Berseem clover and winter vetch. Literature suggests that the inclusion of clovers should generally be ok, winter vetch might be the safer option than common vetch but lucerne should be avoided.

CULTIVATIONS

Often land is ploughed in the autumn. This allows natural weathering to aid the production of adequate tilth in the spring with minimal cultivations. Peas are sensitive to an excessive consolidation and traffic. On lighter soils, spring ploughing is an option where over-wintered stubbles are required. Here, drilling with a cultivator drill on spring ploughed land is becoming more popular.

DETERMINING SOWING DATES

The aim is to ensure that sowings reach the desired maturity in succession, providing a smooth progression in harvesting and processing, with a product of consistently good quality. Temperature is the key factor determining growth and it is therefore necessary to carefully plan successive sowings to ensure continued production throughout the harvest period. Other field factors, such as soil type, aspect and altitude are often taken into consideration to improve the accuracy of sowing plans.

ROW WIDTH AND PLANT POPULATION

Peas should not be sown in rows wider apart than 20 cm. Narrower rows result in higher yields and tend to give more even crops, better weed competition and easier vining. Peas sown with a precision drill emerge evenly and are well spaced to allow rapid growth in the early stages. They also tend to reach a more even maturity around 2 days before non-precision drilled crops. An adequate plant population is essential since low populations are more difficult to harvest, later maturing and more prone to bird damage.

DRILLING AND ROLLING

Most cereal drills are suitable for peas. The drill should be accurately calibrated for each seed lot before sowing. Seeds should be sown so that they are covered by at least 3 cm of settled soil after rolling. On most soil types it is necessary to roll the field to depress stones in order to avoid damage to the viner, and for effective pre-emergence weed control. Rolling should be done soon after sowing but prior to the application of pre emergence herbicide and well before emergence.

FERTILISER

The requirements of peas are small, but where fertiliser is necessary, it is essential that it is put deep enough into the seedbed to allow full utilisation by the crop. Broadcast fertiliser should be ploughed shallow or applied over the furrows. It can then be worked in by subsequent cultivations, but the production of too fine a tilth and compaction must be avoided. Peas may suffer from sulphur deficiency on poor, light textured soils away from industrial emissions. Where soil deficiency is suspected, apply 25 - 35 kg/ha SO₃, as a pre-drilling treatment. This can be in the form of magnesium sulphate, calcium sulphate, potassium sulphate or elemental sulphur.

THE FERTILISER REQUIREMENTS OF PEAS KG/HA				
Soil index# N, P or K	N	P₂O₅	K₂O*	MgO
0	0	100	100	100
1	0	70	70	50
2	0	40	40 (2-) 20 (2+)	0
>2	0	0	0	0
#According to soil analysis on the ADAS classification: 0 = very low, 1 = low, 2 = medium, >2 = high				
*Not more than 50 kg/ha K ₂ O should be combine-drilled, otherwise germination may be affected. The rest should be broadcast.				

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