



Technical Note May 2020 Horticultural Dept

Leeks is a vegetable that has increased in popularity over the last few years with an estimated 160 hectares being grown in 2016. It's a crop that can either be direct drilled or transplanted. Given the reduction in the number of herbicides available, which makes weed control more difficult with the direct drilled crop, virtually all of the crop is transplanted. Leeks are available from mid-July through to May.

SOIL TYPE	Leeks will grow on a wide range of soil types. However as harvesting the crop from heavy soils in the winter months can be difficult, lighter soils would be preferable for that period.						
РН	Leeks are susceptible to soil acidity. The pH of the soil should preferably be around 6.5. Below a pH of 5.8 growth is increasingly restricted.						
ROTATION	Allow a break of 4-5 years between all crops in the onion family. These include onions, scallions, shallots and garlic. White rot which attacks other members of the family is less likely to affect leeks. Poor rotations will increase the incidence of foot rot. White tip can also build up if rotations are too tight.						
SYSTEM	Leeks can be gr	own on beds	or on drills.				
FERTILIZER	Apply the following amounts (kg/ha) according to soil analysis:						
	Index	1	2	3	4		
	Ν	150	130	100	80		
	Р	65	45	35	20		
	Κ	250	200	150	100		
	Note: If P is greater that	n 15 ppm or K is gre	ater than 250 ppm, no e	extra fertiliser is require	ed		
Nitrogen	Leeks are responsive to nitrogen. Hybrid varieties of leeks require more nitrogen than the older open pollinated varieties. Up to 150 kg/ha N may be applied as a topdressing in several splits. The maximum allowed is 300 kg/ha.						
FYM	Organic matter such as well-rotted farmyard manure is beneficial for leeks. Quite apart from the nutritional value organic matter improves the water holding capacity of the soil. Apply 50-70 t/ha.						
CULTIVARS	The old traditional open pollinated varieties have been almost totally replaced by hybrids. Early varieties tend to be taller, paler, longer white shaft, with the late varieties shorter, darker, less white shaft and hardier. Early: Rally, Duraton, Krypton Mid-season: Nunton, Skater, Lexton, Pluston Late: Harston F1, Vitaton F1, Triton						

PROPAGATION Leeks are either single seeded into modules or sown into seedbeds for bare root production. Usual module size is 600 or 345/336 for early varieties. The length of time from sowing to transplanting is normally 10-15 weeks. Most of leek crop is transplanted using imported bare root plants.

CROPPING PROGRAMME	Sowing	Planting	Harvesting		
	January - February March April Late April - early May	April May-June June-July July	July-September September-November November - April March - May		
PLANTING OUT	Leeks are planted out from April to the third week in July. Best results are obtained from using a specialized planter that is able to plant deep and straight. Typically planted 10 cm deep.				
SPACING	Planting numbers per hectare will vary from $120,000 - 230,000$ depending on spacing and size of leek required. 3-4 row beds or drills can be used. Plant spacing within bed or drill is usually 7-10 cm apart.				
SUCCESSION	Leeks are slow to mature and consequently will hold for several months. It depends on the size of operation but could get away with 4-5 plantings and varieties.				
IRRIGATION	Water after planting to aid establishment particularly on old ground. Thereafter irrigate during dry spells.				
WEEDS	Apply Wing P 2 l/ha + Butisan 1 l/ha after planting. For weeds that get through apply Lentagran at 2 kg/ha. Could also tank mix Lentagran 2 kg/ha + Defy 2 l/ha.				
EARTHING UP	To increase the white part of the shaft leeks can be clayed up. This is done several times during the season earthing up gradually moving the soil a little at a time. This operation also doubles up as mechanical weed control and also helps to aerate the ground.				
PESTS	Apart from thrips leeks are a remarkably pest free crop.				
Thrips	Worst attacks are in warm summers whilst rainfall tends to discourage their buildup. Feeding injury gives attacked plants a whitish silvery appearance and can check growth. Control by spraying can be difficult as the thrip stays hidden within the leaf sheaths during the day, coming out at night to feed. Do not let thrip numbers build up – spray as soon as seen and late in the evening. Apply Decis Protech 420 ml/ha, Calypso 0.2 l/ha or Tracer 0.2 l/ha.				
DISEASES	The commonest diseases of	leek are rust, white	e tip and foot rot.		

RustThis common disease of leek is caused by Puccinia allii. Bright orange
pustules appear on the leaves especially during warm weather. Optimum
temperature for infection is 10-18°C. August to October are the worst
months for the spread of the disease. Frost tends to knock it back. The
fungus is not soil borne – it can only do so on green tissue. Leeks are in
the ground 12 months of the year which ensures carry over from one year
to the next. There are no resistant varieties but they do vary in
susceptibility.

Product	Rate	Max No.	HI
Amistar	1 l/ha	3	3 weeks
Amistar Top	1 l/ha	2	2 weeks
Rudis	1 l/ha	3	3 weeks
Nativo	0.36 kg/ha	1	3 weeks

- White TipTends to occur where leeks have been intensively cropped. Tips of leaves
appear waterlogged and finally die back, becoming white and papery as
if bleached by frost. Similar symptoms may occur at margins, centre and
bases of leaves. Often appears in patches in the crop. Spores can last in
the soil up to three years and are rain splashed from the soil onto the
leaves. Apply Acrobat 2 kg/ha or Infinito 1.6 l/ha
- Foot RotThis is a disease that attacks the roots and base of the leek. It's a soil
borne disease that causes the leek to rot at the stem base causing the
leaves to wilt from the outside of the plant inwards. The fungus is patchy
in distribution and is worst in warm moist summers where leeks are
grown in close rotations. Avoid soil compaction and practice good
rotations. Seedbeds should not be sited on land where leeks grew
previously. Bare root transplants are less effected by foot rot than
modules. It is caused by *Fusarium culmorum*.
- HARVESTING The crop is lifted by hand or machine, taken into the packhouse in bins, washed, trimmed and packed into either 500g pre-packs and the larger leeks loose in crates.
- COOLING Leeks will normally be cooled in a fridge prior to sale.

YIELD 35 tonnes per hectare