

Seed Vetch

The purple and white flowers appear in a cluster after blooming. Seed pods, bearing seeds mature unevenly following which they shatter.

Seed yields of 400 to 1,500 kg/ha have been reported.

Pests and Diseases

Common pests include pea aphid, corn earworm, fall armyworm, and spider mites. Vetch can be affected by powdery mildew.

Advantages

It is an ideal short-term crop of high nutritive value, highly acceptable to different classes of livestock and valuable in vetch/cereal mixtures.

This plant is attractive to bees, butterflies and/or birds.

Disadvantages

Harvesting difficulties occur when vetch is planted as a pure stand.

The crop requires a companion cereal species to avoid lodging.

It may be considered a weed when found growing in a cultivated grain field.



Kenya Agricultural Research Institute

P.O. Box 57811-00200, NAIROBI.

Tel: 254-20-4183301-20, Fax: 254-20-4183344

Email: resource.centre@kari.org

Website: www.kari.org

Compiled by:

Lukuyu, B.A. Muriuki, K and Lukuyu, M.

For more information contact:

Centre Director,

KARI Muguga South, P.O Box 30148 – 00100 Nairobi.

Tel: (066) 328801/6; Wireless: 2700617

Fax: (066) 32348/32884

Email: narcmuguga@africaonline.co.ke

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Using vetch to feed livestock



Introduction

Common vetch is a nitrogen fixing leguminous plant introduced to Kenya by European farmers.

It is used as

- Hay or silage for livestock fodder
- Green manure for soil improvement
- A cover crop for bank stabilization.

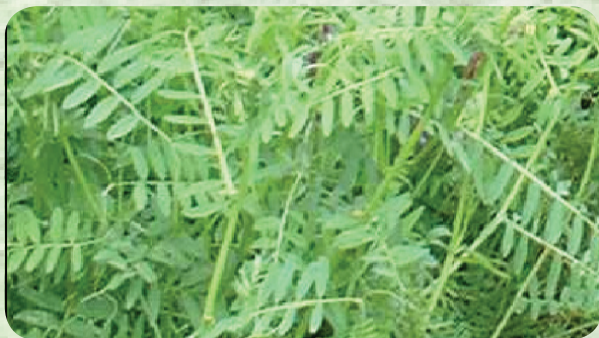
Well-nodulated vetch can fix up to 54 kg /acre of nitrogen into the soil.

Characteristics

Vetch has a horizontal growth habit but may climb on any support if provided.

Flowers are blue to purple in colour and appear singly or in pairs at the base of the leaves.

Seed pods contain up to 12 round black to grayish seeds. It has slender taproot system with numerous lateral branches.



Temperature range

Vetch tolerates mean annual temperatures ranging from 4.3 - 21.1°C.

Some cultivars are susceptible to frost but others are tolerant.

Soil requirements

Vetch performs well on most soil types with good drainage but is best on non acidic sandy or sandy loam soil. It can grow on nitrogen-depleted soils without addition of Nitrogen fertilizer.

Sowing time and rate

Late or early sowing may be practised but the early planting is preferable due to its low moisture susceptibility during establishment.

Rhizobial inoculation of seed is advisable if grown on land for the first time.

Sowing rate

- Pure stand: 100-150 kg/ha
- Intercropped 50-150 kg/ha vetch and 20-70 kg/ha oats.
- In hay composition, vetch can make up to 40-70% of the hay composition.
- Seed densities of up to 250 kg/hectare may be planted but this should be reduced if grown for seed to encourage flower production and seed production.



Mixtures

Hairy vetch is often grown with wheat, maize, oat or rye as nurse crops but. Oat is particularly suitable because of its similar maturity with vetch.



Dry (DM) matter yields

In Kenya yields have been recorded as follows

- Pure stand : 4 2.91 – 3.58 t/ha DM
- Vetch/oat intercrops : 7 – 7.5 t/ha.

Other parts of the world

- Pure stands 2.0 – 6.0 t/ha
- Intercrop 1.74 - 3.21 t/ha

Nutritive value

Maximum nutrient yield is attained when the seeds within the pods have a Dry Matter content of 45 - 55%. Crude proteins (CP): 17 – 25 %.

Fodder Vetch

Vetch is highly acceptable as grazed or conserved forage. It is commonly used in zero grazing (cut and carry) production systems although light grazing promotes re-growth.