

Growing Rape and Kale for Forage

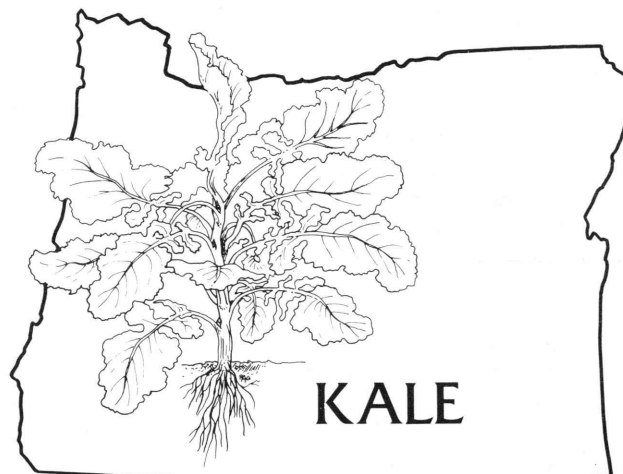
Area of adaptation

Rape (*Brassica napus*) and thousand-headed kale (*Brassica oleracea*) are biennial leafy forage crops grown mostly in cool northern parts of Europe, Canada, and the United States.

Biennial rape plants resemble cabbage plants when young but grow to a height of 1½ to 2½ feet. Kale plants grow somewhat larger. Neither rape nor kale form heads but remain branched and leafy.

In Oregon, rape and kale are primarily grown west of the Cascade Mountains, as they are particularly well suited to cool, moist growing conditions.

Waterlogged soil conditions, however, are not suitable for either rape or kale. In these areas use other crops such as birdsfoot trefoil, big trefoil, ryegrass, or reed canarygrass.



Primary use

Rape and kale are planted almost exclusively for temporary pasture, although they may be used for silage. They frequently are seeded alone for pasture, but mixing oats or annual ryegrass with either rape or kale will provide somewhat earlier grazing. Feed quality of either crop is very good, and pasture will compare favorably with alfalfa.

The turnip rapes are also processed for oil and are closely related to the turnips and mustards.

Thousand-headed kale is the variety most often planted for forage. It produces a woody stem with numerous leafy branches. Narrow-stem kale (*Chou moellier*) produces a tall, single, enlarged stem. This variety is not suited to winter feeding because of its sensitivity to frost.

Establishment

Rape is planted at a rate of 2 to 3 lbs per acre when planted in rows or 4 to 5 lbs per acre when broadcast. Rape may be seeded in early spring for a summer crop, in the summer for a fall crop, or in early fall for winter grazing. Kale can be seeded in the spring to be used in late summer and early fall. For winter feed, however, plant kale in September.

If drilled, plant seed 1/2 inch deep or less for good establishment. Soil should be firm and moist to encourage rapid development of young seedlings.

Use	Precipitation inches	Rape or kale seeding rate lbs/A	Companion species	Companion species seeding rate lbs/A
Temporary pasture	> 40	5*	Annual ryegrass or oats	10 40
Silage	40-60	5*	Oats	60

*If seed is drilled, rate may be reduced to 3 lbs/A.

Varieties

Dwarf Essex (winter) rape is the variety most commonly used for forage. Oilseed or summer rape is grown more often for its oil than for forage. Other species of rape are annual turnip rape (*Brassica campestris*) and biennial turnip rape (*B. campestris* var. *autumnales*).

Fertility and pH requirements

As members of the *Cruciferae* family, rape and kale require relatively large quantities of sulfur for good growth. Apply at least 20 lbs of sulfur per acre before planting or as a spring top dressing if fall planted. Summer or fall plantings should receive 50 lbs of N per



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acre with an additional 50 lbs of N applied in spring. Apply phosphorus and potassium as needed. Specific recommendations based upon soil test data are provided in OSU Fertilizer Guide 16 for perennial grass pastures.

Management

Kale and rape crops are sometimes chopped and hand-fed in order to reduce waste associated with trampling by livestock. Waste can also be reduced if pastures are cross-fenced and the grazing period limited to a few hours each day.

Thousand-headed kale will recover from fall grazing and produce a crop in the spring if it is not grazed below buds needed for regrowth. By planting in the spring, grazing in the late summer and early fall and allowing regrowth, you can produce a good crop for late winter or early spring grazing.

Because of its rapid growth rate, rape can be seeded in an emergency and within 8 to 10 weeks will provide excellent quality pasture. Annual ryegrass, when planted with rape, adds firmness to the pasture because of its extensive fibrous root system.

Rape can be grazed the entire growing season. Rotational grazing to keep forage between 4 and 12 inches will maintain a good quality and quantity of pasture throughout the year.

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