

204.01 SEED MIXTURE SELECTION

Information on grass and clover types should be considered when choosing seed mixtures to ensure the varieties selected and the mixture is well suited to the intended use.

HIGH PRODUCTION GRASSES

Italian Ryegrass (IRG)

Vigorous establishment and high yielding. Early growth, long season, high sugar. Ground cover 2-4*. 1-2yr. Leys. Heading dates: mid-late May. Needs frequent cutting, tight grazing to maintain quality. Responsive to fertility. Large seed and strong establishment character.

Hybrid ryegrass (HRG)

Italian X perennial ryegrass hybrid. Slightly lower vigour & yield than IRG but better mid-season quality, and more persistent (especially newer Vars.). Ground cover 3-5.5*; 3-5yr. leys

Perennial ryegrass (PRG)

Mainstay of medium/long term leys/ perm.grass. Adaptable, nutritious, and responsive to moisture and soil fertility. New varieties available (eg AberDart) with high sugar content. Classified by heading date. Later heading associated with leafy, more persistent type

Early Head early-mid May
Ground cover 5-7.5*

Intermediate Head late May
Ground cover 5-8*

Late Head early-mid June
Ground cover 6-8

Diploid and **Tetraploid** varieties of IRG, HRG and PRG are available. The **Tetraploid** varieties have higher yield at first silage cut, high sugar and moisture content but a more 'open' growth habit and less persistence. Seed numbers/kg are typically only 50-60% of equivalent diploid varieties. Tetraploid varieties should not represent more than 50% of medium/long term seed mixtures.

Timothy

Late heading, winter hardy and palatable. Well suited to wetter, heavy soils and winter sheep grazing pastures. Low sugar content. Replaced by tetraploid PRG varieties on very intensively grazed and silage leys. Ground cover 4.5-6.5*. Very small seed and slow to establish.

* Ground Cover – from current NIAB Recommended List. 1=poor; 9= good. Indicates tillering capacity and persistence.

OTHER GRASSES

Cocksfoot - early heading, drought tolerant, productive species but low palatability remains even in 'improved' varieties. Special purpose use for grazing on very dry soils.

Red Fescue - winter hardy and early growing species useful on hill grazing pastures. Needs tight grazing to maintain leafiness and quality.

Meadow Fescue - nutritious, leafy species traditionally used with Timothy in Grass/clover leys. Less vigorous and lower yielding than PRG. May be useful in low intensity, grass/clover leys.

CLOVERS

White Clover

Nutritious, 'nitrogen fixing' species suitable for grazing or graze-cut leys. The growth and survival of the 'stolons' at the soil surface determines persistence. Varieties are classified by 'leaf size':

Small-leaved - more tolerant of and persistent under close sheep grazing

Medium-leaved - intermediate type for cattle or rotational grazing, cut-graze leys. New varieties are more adaptable to a range of management.

Large-leaved - larger leaf and longer petioles better adapted for longer grazing intervals or silage management but less tolerant of close or frequent grazing.

Variety selection should also be based on requirements for winter hardiness, spring growth, ground cover, disease resistance, yield

Red Clover

Nutritious, nitrogen-fixing species suitable for short term, cutting or cut-graze leys.

Single growing point makes plant intolerant of close or winter grazing.

Persistence limited to 3-4 yrs.

Use resistant varieties and rotation (5yr) to avoid soil borne disease (Sclerotinia) and stem eelworm.

Oestrogen content makes red clover unsuitable for sheep grazing at 'tupping' and in early pregnancy.

SOME SEED MIXTURE MODELS

1. SHORT TERM LEY

Duration: 1-2 years

Use: frequent silage cuts and grazing

Type	kg/ac
IRG	8.0
IRG (tet)	6.0
Total	14

- Variety selection for actual site /use according to winter hardiness, ground cover, spring growth, heading date, disease resistance.

2. SILAGE LEY

Duration: 3-5 years

Use: 3-4 cuts per year, high N use; no clover

Type	kg/ac
HRG(tet)	6.0
Int PRG	4.0
Int PRG	3.0
Total	13

- Select PRG varieties with similar heading dates to the selected HRG.
- Include PRG variety with high sugar.
- Option to add 1.0 kg/acre white clover (medium and large leaf blend)

3. MEDIUM TERM CUT and GRAZE LEY

Duration: 5-7years

Use: 1-2 silage cuts and grazing

Type	kg/ac
HRG(tet)	3.0
Int PRG	4.0
Late PRG	2.5
Late PRG (tet)	2.5
White Clover	1.0
Total	13

- Select HRG and Int. PRG varieties. with 67D date 25 May -1 June and late PRG varieties close to 1 June
- Select varieties to meet your need for early growth, ground cover, winter hardiness and disease resistance
- Use medium leaved clover or blend of medium and large-leaved clover varieties

4. RED CLOVER SILAGE LEY

Duration: 3-4 years

Use: 3-4 silage cuts or 2 cuts, plus summer lamb/cattle finishing

Type	kg/ac
HRG (tet)	5.0
Int PRG	2.0
Int/Late PRG	2.0
Red Clover (early)	3.0
Total	12

- Select PRG varieties with similar heading date to the selected HRG
- Select PRG varieties with high sugar

5. LONG TERM DAIRY GRAZING LEY

Duration: 7 years plus

Use: Intensive dairy grazing with clover

Type	kg/acre
Int PRG	4.0
Late PRG	3.5
Late PRG (tet)	3.5
White Clover	1.0
Total	12.0

- Select Int PRG with heading (67D) date >55days
- Select white clover variety or blend of medium-leaf types
- Option to exclude clover for high N systems

6. LONG TERM SHEEP GRAZING LEY (heavy land)

Duration: 7 years plus

Use: For intensive continuous or rotational sheep grazing

Type	kg/acre
Int. PRG	3.0
Late PRG	4.0
Late PRG(tet)	3.0
Timothy	1.5
White Clover (small leaf)	0.5
White clover (medium leaf)	0.5
Total	12.5

- Select Int PRG with 67D date later than 25 May
- On lighter, dry sites replace Timothy with additional 2.5kg PRG

Seed rates may be reduced by 2kg/acre for short / medium term and by 1kg/acre for long term seed mixtures when undersowing.

FURTHER INFORMATION

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Reading: NIAB recommended lists of grasses and herbage legumes 2001.