



SILAGE DECISIONS FACTSHEET



RESEEDING AND SOWING GRASS

Weeds and weed grasses can become dominant in grass swards and reseeding allows favourable species and varieties to be sown. Grass is also occasionally sown as a break crop between cereal or other crops, or a break crop may be sown between grass crops.

Grass breeding in the UK and abroad continues to improve the varieties available, offering increased yield or other desirable characteristics, such as disease resistance. One benefit of reseeding is that it allows modern varieties to be included.

The NIAB Forage Varieties testing scheme trials varieties on a number of sites to produce Recommended Lists, these are funded by a voluntary levy paid by breeders and merchants who have access to detailed information. However, some information is available free online at www.herbagevarietiesguide.co.uk

However, ploughing and reseeding is an expensive operation, with cultivations costing far more than the seed. In recent years, direct drilling or overseeding into existing swards, without ploughing, have been used to introduce new varieties. Grass seed can also be undersown in cereal crops or maize.

While long term leys and permanent pasture spreads or cuts out reseeding costs, a short term (1-2 year) ley allows use of Italian ryegrass varieties (see below) and these can produce much higher yields, typically 15-25% more, making them economic to grow on suitable land. But these varieties will not persist for more than two years. For longer term leys (3-5 years) Hybrid ryegrasses can have a role.

Seed mixtures for silage

Grass seeds are usually sown in mixtures. Selecting the right mixture for the intended use needs to be based on information on grass and clover varieties. Swards will vary widely and silage can be made from both specialist mixtures, general mixes in long medium and short term leys, as well as permanent pasture.

HIGH PRODUCTION GRASSES ATTRIBUTES

Italian ryegrass (IRG)

- Vigorous establishment and high yielding
- Early growth, long season and high sugar
- 1-2 year leys
- Heading dates: mid-late May
- Needs frequent cutting, tight grazing to maintain quality
- Responds to high fertility

Hybrid ryegrass (HRG)

- Italian x perennial ryegrass hybrid
- 3-5 year leys
- Slightly lower vigour and yield than IRG, but better mid-season quality and more persistent new varieties

Perennial ryegrass (PRG)

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

Heading dates:	Early	Early-mid May
	Intermediate	Late May
	Late	Early-mid June

Diploid and Tetraploid varieties of IRG, HRG and PRG are available. 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 intensively grazed and silage leys
- Very small seed and slow to establish

OTHER GRASSES

Cocksfoot - early heading, drought tolerant, productive species, but low palatability even in improved varieties. It is good for grazing on very dry soils.

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

Meadow Fescue - nutritious, leafy species traditionally used with Timothy in grass/clover leys. Its less vigorous and lower yielding than PRG, but useful in low intensity, grass/ clover leys.

CLOVERS

White Clover

See the White Clover factsheet in this series.

Red Clover

Nutritious, nitrogen-fixing species suitable for short term, cutting or cut-graze leys. Its single growing point makes plants intolerant of close or winter grazing and persistence limited to 3-4 years. Use resistant varieties and rotation (5 years) to avoid soil borne disease (*Sclerotinia*) and stem eelworm. Be aware that oestrogen precursor makes red clover unsuitable for sheep grazing six weeks before, during and after tugging.

Further information is available in *Grass: Its Production and Utilisation*, Third Edition, edited by Alan Hopkins and published for the British Grassland Society by Blackwells Science.

MODEL SEED MIXTURES FOR SILAGE

Short term ley

Duration: 1-2 years. Use: frequent silage cuts and grazing

Type	kg/ac	kg/ha
IRG	8.0	19.8
IRG (tetraploid)	6.0	14.8
Total	14	34.6

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

Silage ley

Duration: 3-5 years. Use: 3-4 cuts per year, high N use; no clover

Type	kg/ac	kg/ha
HRG (tetraploid)	6.0	14.8
Intermediate PRG	4.0	9.9
Intermediate PRG	3.0	7.4
Total	13	32.1

- Select PRG varieties with similar heading dates to the selected HRG
- Include PRG variety with high sugar
- Option to add 1kg/acre white clover (medium and large leaf blend)

Medium term cut and graze ley

Duration: 5-7 years. Use: 1-2 silage cuts and grazing

Type	kg/ac	kg/ha
HRG (tetraploid)	3.0	7.4
Intermediate PRG	4.0	9.9
Late PRG	2.5	6.2
Late PRG (tetraploid)	2.5	6.2
White Clover	1.0	2.5
Total	13	32.2

- Select HRG and Intermediate PRG varieties, with 67 D-value date of 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

Red clover silage ley

Duration: 3-4 years. Use: 3-4 silage cuts or 2 cuts and lamb/cattle finishing

Type	kg/ac	kg/ha
HRG (tetraploid)	5.0	12.3
Intermediate PRG	2.0	4.9
Interm/Late PRG	2.0	4.9
Red Clover (early)	3.0	7.4
Total	12	29.5

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

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Please note: Any changes to management should be researched thoroughly and tried cautiously. BGS and EBLEX cannot be held liable for any losses.