

LAWSON PHALARIS



500mm+



4.5-8.5



Most Soil Types



PBR

KEY FEATURES

- Semi-erect, winter active phalaris
- Shorter summer dormancy with better potential to respond to summer moisture resulting in valuable summer feed
- Superior summer & autumn production, late flowering, disease resistance & good grazing tolerance
- Equal rust resistance to Holdfast & Atlas
- Longer leaves & higher tiller density compared to varieties like Holdfast & Sirosa



DESCRIPTION

Lawson was bred in Argentina and has been extensively evaluated under Australian conditions across numerous trial sites in NSW and Vic over the past five years. It is a semi-erect, winter active phalaris developed for short summer dormancy, superior summer and autumn production, late flowering, disease resistance and good grazing tolerance. Lawson has strong seed yields and retention, this is an important consideration when selecting a phalaris variety as it impacts on seedling vigour, and the ability to recover stands through natural seed set and recruitment. Lawson's maturity and winter production are similar to varieties like Holdfast; however it possesses shorter summer dormancy. This shorter period of dormancy over the summer months provides potential for greater production when moisture is available. Lawson was developed under grazing conditions and selected for its large leaves and higher tiller density compared to varieties like Holdfast and Sirosa.

Variety	Tillers per plant	Vegetative tiller diameter (mm)	Flag leaf width (mm)	Flag leaf length (cm)	Plant height (cm)
Sirosa	14.5	4.94	10.2	20.6	109.21
Holdfast	13.7	5.62	11.3	23.3	112.37
Lawson	19.4	5.23	14.2	26.4	102.33

DISEASE RESISTANCE / TOLERANCE

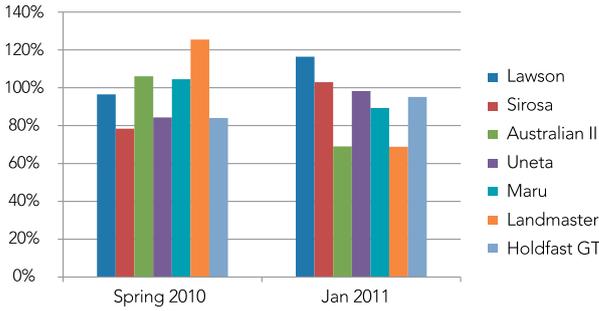
Testing under high disease prevalence has shown Lawson has equal rust resistance to Holdfast and Atlas and much higher resistance than some varieties commonly used. Good rust resistance is important for yield and palatability in autumn and late spring where susceptible varieties breakdown markedly.



PERFORMANCE

Short Summer Dormancy

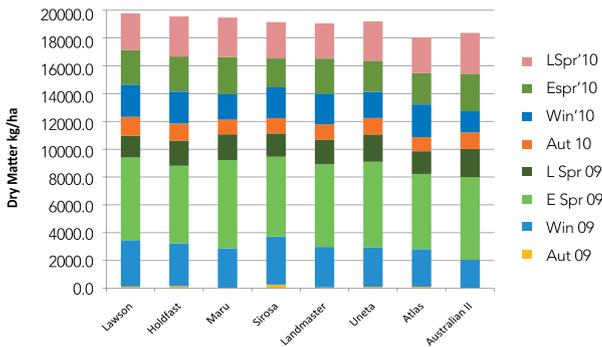
Lawson has a similar winter growth pattern to Holdfast, Sirosa and Landmaster. However, Lawson's lower complete summer dormancy allows this variety to provide good autumn - late spring yields and the potential to respond to summer moisture resulting in valuable summer feed.



Holbrook, southern NSW, spring 2010 cut yields Vs mid Jan 2011 displayed as a percentage of the trial mean at each cut. Cut yields demonstrating Lawsons growth, in the presence of summer moisture, due to the shortened summer dormancy. Source: Heritage Seeds temperate research, 2011

Selection for grazing tolerance, leaf size & tiller density

During the breeding process Lawson underwent repetitive cycles of selection for tolerance to heavy grazing. As a result of this process Lawson develops large crowns. It is intermediate in growth habit compared to the upright types Holdfast, Sirosa or Atlas and the more prostrate Australian or Uneta types. This helps protect its tiller growing points and produces less "clumpiness" in the stand than standard winter active types without loss of good, upright, leafiness for grazing availability. Plant morphological measures collected during the breeding process have shown Lawson can produce up to 30% more tillers and 20% wider flag leaf width than Sirosa and Holdfast. Increased tiller density results in more growing points which can also result in improved persistence under stress.



Seasonal dry matter yield (kg DM/ha) Howlong 2009 sown trial.

Lower alkaloid levels

Phalaris based staggers and sudden death syndrome have been linked to the alkaloids and alkaloid levels in phalaris dominate pastures. High alkaloid levels in some phalaris species have also been shown to impact on palatability and grazing acceptance. Phalaris can be tested to determine the presence or absence of high levels of alkaloids. Test results show that Lawson had low levels of the alkaloids tested for, compared to a range of varieties commonly used.

Variety	Alkaloid Level 31/05/2010
Atlas	1 to 2
Australian II	4
Holdfast	0
Landmaster	3
Lawson	1
Maru	3 to 4
Sirosa	2 to 3
Uneta	3 to 4

0 = Low Total Alkaloid Content

5 = High Total Alkaloid Content

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