



WL 349HQ

FD4

DORMANT

HQ™

NEW DISEASE PACKAGE RAISES ANTE ON YIELD AND PERSISTENCE LEADERS

Broad disease resistance is always a priority on our research teams, constantly looking for additional tolerance across a wide geography. WL 349HQ is a new W-L breakthrough product, with enhanced multi-race Aphanomyces¹ and Anthracnose² disease package that offers growers the ability to help protect yield and quality potential. If top tier yield, quality and persistence under tough soil conditions at establishment or in-crop are your must-haves, you've found your next conventional variety.

WL 349HQ Advantages

- Outstanding yield potential and agronomic performance under 4 to 5-cut harvest management systems (FD=4.4) in various locations throughout dormant alfalfa use areas
- A new day in disease resistance greatly effecting establishment and in-crop performance, WL 349HQ's perfect Disease Resistance Index (DRI) of 40/40 also includes HR (high resistance) to enhanced multi-race aphanomyces¹, and HR to anthracnose race 1 and race 5²
- Superb winterhardiness (WH=1.7); WL 349HQ delivers excellent cold tolerance and persistence
- WL 349HQ contains "HQ" high-quality feed value levels highly desirable for dairy and cash hay producers
- Enhanced disease package offers expanding yield advantages over competitive checks with added years in production
- WL 349HQ delivers fast recovery in an FD4 package
- Great standability for intensive management systems
- Dark green, fine-stemmed, and a highly palatable HQ variety
- Very well-adapted and selected for use in the Midwest, Northeast, Intermountain regions, Pacific Northwest or Central and Northern Plains of the U.S.

AGRONOMIC TRAITS

Maturity	Early
Fall Dormancy	4.4
Winterhardiness	1.7
Digestibility/Feed Value	Superior
Recovery After Harvest	Very Fast
Standability	Excellent
Traffic Tolerance	Very Good
Multileaf Expression	Very High
Disease Resistance Index	40/40

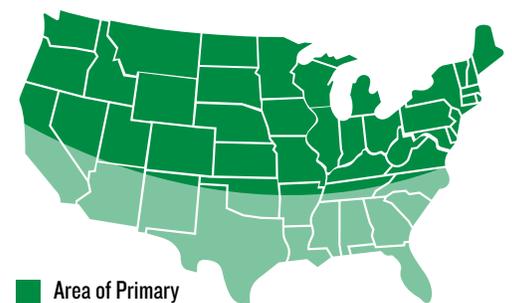
PEST RESISTANCE TRAITS

Bacterial Wilt	HR
Fusarium Wilt	HR
Verticillium Wilt	HR
Anthracnose (Race 1)	HR
Anthracnose (Race 5) ²	HR
Phytophthora Root Rot	HR
Aphanomyces Root Rot (Race 1)	HR
Aphanomyces Root Rot (Race 2)	HR
Aphanomyces Enhanced Multi-Race ¹	HR
Spotted Alfalfa Aphid	R
Pea Aphid	HR
Stem Nematode	R

HR = HIGH RESISTANCE R = RESISTANT MR = MODERATE RESISTANCE

¹ Includes race 1 and race 2 protection. In addition, Forage Genetics International, LLC (FGI) has identified a novel source of Aphanomyces resistance in the greenhouse and field that visibly outperforms unrelated varieties on the market when grown under natural or artificial disease pressure. FGI researchers have been working cooperatively with universities collecting and testing the most virulent strains of Aphanomyces to help determine the level of resistance to this novel source.

² Includes race 1 protection, along with Anthracnose Race 5, which was recently confirmed by USDA's Agricultural Research Service.



Area of Primary Adaptation

What does the new disease package mean for growers?

Disease resistance packages in W-L Alfalfas just took a major step-change up with the release of an enhanced multi-disease, multi-race resistance of Aphanomyces and Anthracnose, the industry's first. Aphanomyces fungus, prevalent in a great majority of key Midwest and Northeast alfalfa states, weakens alfalfa roots, resulting in stunted, chlorotic plants and poor seedling establishment in wet soil conditions, and a persistent drain on established stands. Many alfalfa seed varieties are available with Race 1 resistance, fewer are available with Race 2 resistance, but enhanced multi-race resistance isolate is very unique.

Anthracnose, a disease that effects stems and crowns occurs in more warm and humid conditions. Classic symptoms are liken to diamond shaped lesions on lower stems and the "shepherd's crook" wilting on the terminal parts of shoots. Like Aphanomyces, many alfalfa seed varieties are available with Race 1 resistance, but WL 349HQ comes fully loaded with high resistance to Anthracnose Race 5 as well.

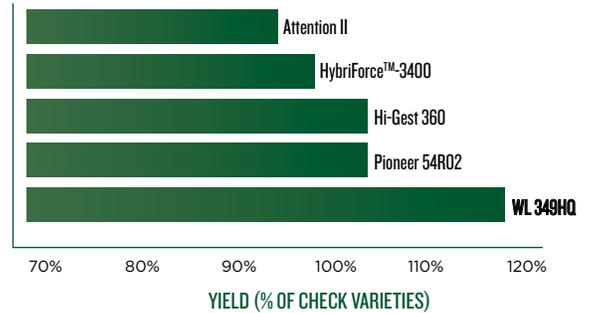
Both of these diseases can cost growers via loss of yield at establishment or losses in-crop, so if these two diseases are prevalent in your geography, strong consideration should be made to realize the benefit of planting this impactful disease resistance package from W-L Alfalfas.



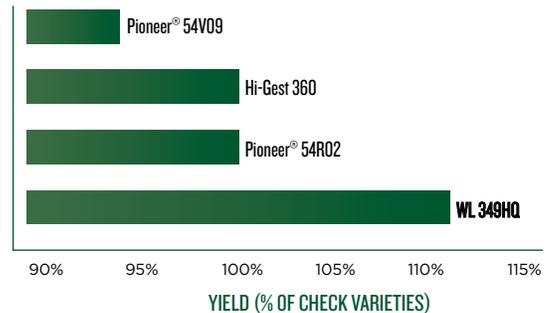
High-resistance Multi-Race Aphanomyces and Anthracnose resistance varieties (in the middle) compared to susceptible competitive check varieties (on outsides), Photo taken at FGI Research Facility, June 2018, West Salem, WI

WL 349HQ Outyields the Competition*

Boone, IA, Mt. Joy, PA, Marshfield, WI, West Salem, WI 2015-2017



Nampa, ID, Touchet, WA 2015-2017



* Results are based on controlled field trials at the listed W-L Research location. Results may vary and are dependent on factors outside of W-L Research's control, such as weather. Yield, profit and other results cannot be predicted or guaranteed by W-L Research.

For more information visit WLAalfas.com.

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