

Alfalfa Product Profile Sheet

HybriForce-400 Hybrid Alfalfa



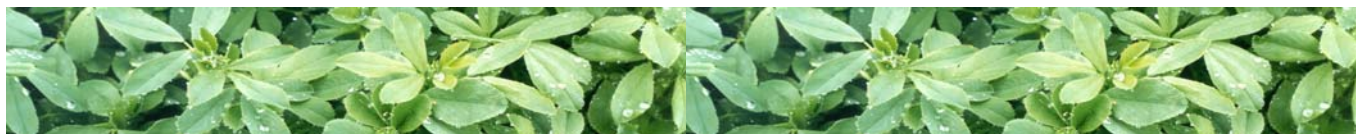
HybriForce-400 is the world's first hybrid alfalfa variety and a product of Dairyland Seed's exclusive patented msSunstra Hybrid Alfalfa Technology. It is being recommended to alfalfa growers across the greater hardy alfalfa production area of the United States. **HybriForce-400** has first place finishes in university forage yield trials in the states of WI, MN, MI, MT, IA, KY and OK. Forage yield increases of 8% have been reported in these university trials and on farm reports of 15% advantage over 3774 comparisons over 10 states across 6 years. **HybriForce-400** strengths include its aggressive forage yield capabilities, high forage quality, distinctive rapid regrowth after harvest, drought tolerance with that performs under wheel traffic with excellent winter survival abilities and solid persistence.

HYBRIFORCE-400

Feature	Benefit
Hybrid Yield	Increase in forage yield capabilities. Greater than 8% in state trials. Greater than 15% in farmer strip plots.
Fine Stems	Excellent potential for high quality forage. Herbage tends to dry 5-6% faster than large stemmed varieties based on our strip trial data. Makes a very attractive bale.
Plant uniformity	More plants have the highest yield growth stage at the same time. Can be managed for top forage quality.
Drought Tolerance	Quick ground cover to reduce moisture loss. Deep rooted to capture moisture.
Traffic Tolerant	High forage yield production under equipment wheel traffic pressure.
Shade Tolerant	Competes well with nurse crops.
More Resilient Plants	Provide greater forage yield production in years 3-4.
Quick Emergence	Fast ground cover and stand establishment.
Increased Spring Vigor	Allows for earlier cutting for increased quality with less risk of stand loss.
Faster Regrowth with more vigorous plants	Photosynthesis starts sooner, which increases yield due to better use of water and nutrient uptake.



Hybrid Alfalfa Technology
from Dairyland Seed



HYBRIFORCE-400

Agronomic Traits

Bacterial Wilt	HR	Columbia Root-Knot Nematode	Poor Host*
Fusarium Wilt	HR	Winter Survival	1.58
Phytophthora Root Rot	HR	Fall Dormancy	4.0
Verticillium Wilt	R	Saline Soils	Tolerant**
Anthrachnose (Race 1)	R	DRI	26
Aphanomyces Root Rot (Race 1)	MR	Root Type	Tap
Pea Aphid	R		
Spotted Alfalfa Aphid	HR		
Blue Alfalfa Aphid	MR		
Stem Nematode	R		
Northern Root-knot Nematode	HR		

**Poor host significantly reduces the number of nematodes allowed to reproduce but does not eliminate reproduction.*

***Forage yield production under irrigation with saline water.*

Forage Yield

Ron Van Dam – Jasper, MN:

“Very good tonnage. Plant health excellent. It took one round of hybrid versus 1-1/2 rounds of competitor to get the same tonnage.”

Ted Heslink -- Garden City, KS:

“I have never seen a visual difference in strip plots until hybrid alfalfa.”

Dave Brandel – Clinton, WI:

“HybriForce-400 yielded a half ton more per acre on the second and third cut. It re-grew a couple of days faster and had finer stems.”

Tim Berntson – Buffalo, ND:

“The HybriForce-420/Wet yielded 7.16 tons/acre. The relative feed value of the first cut was 168 with a forage yield of 3.5 tons/acre.”

Forage Quality

Jon Shoutz – Litchfield, MN:

“HybriForce-400 yielded a half a ton more per year. The cows ate it better and there was no wasted forage with the hybrid. The HybriForce-400 has fine stems which seem to pack better in the bunker.”

David Payne – Allen, MI:

“First cut looks like second or third. First cut of 15 acres had 55, 1100-pound bales. The hybrid dries quicker and stands up well.”

Mike Henry – Gypsum, KS:

“It doesn't bloom as quickly as other varieties and that helps us to harvest quality alfalfa that will test better.”

Don Hamm – Fredonia, WI:

“Cows went up ten pounds per cow when we starting feeding hybrid alfalfa. 24% protein-RFV 196.”

Faster Drydown

Matt and Mike Bronsteatter -- Merrill, WI:

“The HybriForce-400 was ready to bale about 2 hours faster than Magnum V-Wet.”

Bob and Kay Staudinger -- Manitowoc, WI:

“HybriForce-400 dried 3-4 hours faster than Magnum V.”

Horse Hay

Matt and Mike Bronsteatter -- Merrill, WI:

“We sell our hay to horse owners and the HybriForce-400 forage was softer and the horses ate it better.”

Traffic

Richard Rohde – Greenwood, WI:

“HybriForce-400 handled the traffic and the yields are just great. Plus quality!”

Lyle Scheffer -- Rice, MN:

“The first thing I noticed about HybriForce-400 was its ability to handle wheel traffic damage on wet soils.”

Winter Survival

Matt and Mike Bronsteatter -- Merrill, WI

“We had an open winter and the HybriForce-400 came through the winter while the other alfalfas did not survive.”

Dustin Daane -- Brandon, WI:

“Several other varieties were planted on my farm and in the spring of 2005, the HybriForce-400 survived & the others were plowed out. The first crop gave me a good yield and it increased in yield after every cut.”

Drought Tolerance

Francis Miesen – Potosi, WI:

“HybriForce-400 came back faster even during drought. On the 4th crop, I got two big square bales/acre (850 pound bales) while the non hybrid was one bale per acre.”

Mike Hemmingson – Centerville, SD:

“Handles drought better than non-hybrid alfalfas and has finer stems. I noticed healthier leaves.”

Bruce Schneider – Venedy, IL:

“Between the 2nd and 3rd cutting, we received only 2/10 inch of rain and the hybrids out-yielded the non-hybrids by 20%. This indicates the hybrids have very good drought tolerance.”

Heavy Bale Weights

Jeff Burkhart - Vale, Oregon

Bale weights with hybrid alfalfa averaged around 1640#/ 3'x4' bale. The big course stemmed variety bale weights averaged 1200-1300#/3'x4' bale on equal moistures.