DUO
FESTULOLIUM

"Like ryegrass…only BETTER!"

Characteristics:

Many are familiar with ryegrass. Some are acquainted with meadow fescue. **Duo is familiar with both.** **Duo** was selected as a cross of the best festulolium material available. It looks like ryegrass, digests like ryegrass, is palatable like ryegrass, but is heartier. Due to a parentage that includes meadow fescue, **Duo** can better tolerate summer's intense heat and winter's frigid cold. In evaluations throughout the country, **Duo** continues to show excellent performance and persistence. It also appears to have a longevity that exceeds most ryegrasses. **Duo** is *Like Ryegrass…but BETTER!*

Notable Characteristics:

- **High Feed Value.** As a tetraploid, **Duo** has a high sugar content that is easily digestible, allowing animals to gain a high-energy ratio for milk/meat conversion.
- **High Persistence.** University data continues to show that **Duo** is able to generally persist and survive longer than most ryegrasses without quality loss. Ohio State University data shows Duo has very good winter survivability, exceeding most perennial ryegrasses. (See back of page)
- **High Yields** University yield trial results have indicated that **Duo** can out-yield ryegrasses by 10-25%. Meadow fescue parentage helps minimize the "summer slump" while ryegrass parentage maximizes spring and fall growth.
- **High Palatability** University grazing trial results reveals that cows show a preference to **Duo** over ryegrass. Dairy farmers should expect milk production results similar to tetraploid ryegrass.

Applications:

Duo is recommended for hay, grazing, silage or green chop (direct feeding). When mixed with alfalfa or clovers, **Duo** provides an improved grass companion that will enhance the quality of the cow's diet. When seeded alone or with other grasses and well managed (with proper fertility and grazing practices) **Duo** should provide excellent tonnage of high quality forage.

Seeding Rates:

Plant **Duo** at 35-45 lbs. per acre or 15-20 lbs. mixed with other grasses and legumes. If seeding **Duo** with alfalfa in a new seeding (where alfalfa is to be predominant) plant no more than 3 lbs. per acre. Plant ¼" deep. **Duo** can also be frost seeded.

Fertility:

Duo reacts well to nitrogen, like its ryegrass parentage. Before planting your pasture, test your soil and add lime and fertilizer as needed. In University grass fertility studies **Duo** showed significantly improved production at rate of 300+ units of actual N per year. Apply 1/3rd at green-up and then evenly after each grazing/harvesting of the forage. Fertilize according to local recommendations for the production you desire.

Grazing/Harvesting Tips:

If grazing, graze **Duo** down to about 3-4" after the plant reaches 10-12" in height. This will provide the maximum forage quality and leaf-to-stem ratio. When cutting for hay, leave 3-4 inches to allow the Duo plants to tiller out. Tillering out is the plant's natural survival mechanism and allows the plants to be more persistent. As with any forage, management practices dictate the quality of the forage nearly as much as the genetics of the product. With proper management practices **Duo** should provide high yielding, high quality forage that should result in improved farmer profitability.

AMPAC seed company

www.ampacseed.com

University Of Wisconsin-Hay Trial

Lancaster Agricultural Research Station, Lancaster, Wisconsin

Yield in ton/acre 2002

Species	Variety	30-May	2-Jul	16-Aug	24-Sep	Year Total	2001 Year Total	2000 Year Total	3-Year Total
Festulolium	Duo	2.25	1.35	1.31	0.89	5.56	4.54	4.53	14.93
Perennial	Elgon	1.56	1.6	1.26	1.05	5.22	3.92	3.98	13.12
Perennial	Herbie	1.37	1.42	1.26	1.09	5.04	4.36	3.67	13.07
Perennial	Mongita	2.33	1.29	1.18	1.15	5.81	3.77	3.43	13.01

Ohio State Ryegrass Hay Trials

Wooster, OH – Sown April 7, 1999

VARIETY	Winter Injury[a] 12-Apr-01	% Stand 23-May-01	DM yield (lb/acre) 13-Jun-01
Duo	**2.4**	**88.6**	**2754**
Amazon	4.1	65.4	1942
Barfort*	4.1	64.9	1797
Aubisque	3.3	70.7	1691
GrandDaddy	3.5	66.0	1459
Elgon	3.5	72.6	1406
Respect	3.8	77.5	1385
BG34 Blend	3.7	66.4	1377
PollyII	4.6	11.3	565
Bestfor	4.7	6.6	475
BestforII	4.9	10.0	277
BG16 Blend	4.9	1.6	0
Mean	3.8	44.9	1463
LSD (0.05)	0.5	16.0	591

a Winter injury: 1=no injury with good vigor, 2=moderate injury, 3=severe injury with stand loss, 4=very severe injury and significant stand loss, 5=dead (>95% dead.)

Complete results at www.ag.ohio-state.edu/~per/ forage00/index.html

University of Kentucky Hay Trials

Lexington, KY - Sown 23 August 1999

Complete results at www.ca.uky.edu/agc/pubs/respubs.htm

Variety	Total 2000	Total 2001	2-yr Total
Atlas	10.30	7.49	17.80
Select	10.03	7.54	17.58
Duo	**11.04**	**6.27**	**17.30**
Ky 31	9.60	7.33	16.93
Fuego	9.33	7.18	16.51
Seine	8.93	7.57	16.51
Maximize	8.88	7.15	16.04
Johnstone	8.89	6.89	15.78
Mean	9.50	7.05	16.55
LSD	2.12	0.63	2.36

Penn State University Grazing Study

State College, PA- Sown Aug, 2001

Complete results at http://cropsoil.psu.edu/pdf/2004foragetrials.pdf

Forage Consumed (lb/acre)

Variety	2002 Yield	2003 Yield	2004 Yield	3-Year Total
Duo	**5762**	**5489**	**5534**	**16,785**
Mara Plus	4488	5203	5513	15,204
Tonga	4784	4949	4849	14,582
Grand Daddy	4979	5044	4523	14,543
Barleone	3191	4696	5149	13,036

Cornell University, Ithaca, NY

Perennial Ryegrass-Festulolium Trial

Sown May 6, 2002 Variety	**2004 Total Season**	**2003 Total Season**	**2 year Total**	**heading date**
Duo (festulolium)	**5.07**	**6.75**	**11.82**	**27-May**
Spring Green (festulolium)	4.22	6.82	11.04	27-May
Garibaldi	4.4	6.42	10.83	3-Jun
Bastion	4.25	6.00	10.25	23-May
Citadel	4.36	5.79	10.14	27-May
Quartet	3.34	5.68	9.03	7-Jun
BAR Lp 9132	3.22	4.88	8.09	12-Jun
Trial Mean	4.12	6.05		
LSD(.05)	0.55	0.47		
CV(%)	9.2	5.3		

Complete results at
http://plbrgen.cals.cornell.edu/programsandprojects/departmental/foragetest/grasses04.htm