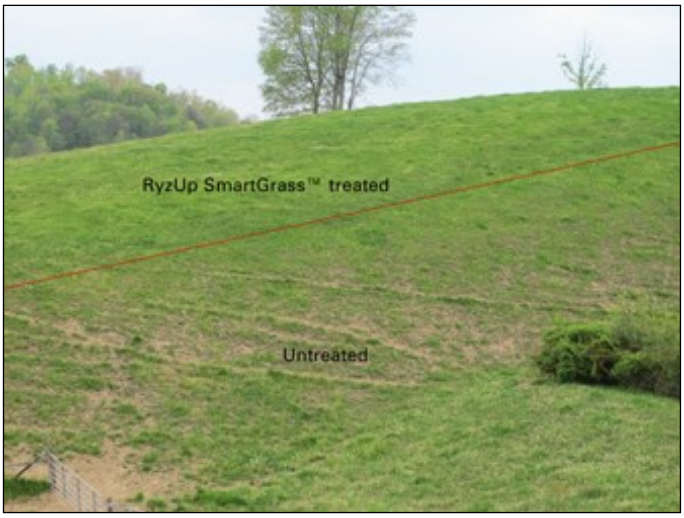
Increasing Cool Season Pasture Production in the Spring Utilizing Plant Growth Hormones

With land values reaching historical highs, pasture rents rising, and worldwide forecasted demands predicted for increases in red meat in human diets on the rise, producers will need to be more efficient in pasture utilization and make marked increases in production and utilization levels.

To fill this demand, one strategy is for producers to lower production costs by both extending the grazing season and increasing grazing capacity and utilization. This can be initiated by using more winter and spring annuals, the grazing of crop residues, stock piling fescue for fall grazing, and using "plant growth promoting hormones" on cool season grasses during both spring and fall growth periods or when other forage resources are unavailable or in restricted supply.

Replicated trials on the University of Illinois Dudley-Smith Farm over the past 5 years we have looked at the application of RyzUpSmartGrass (RUSG) on cool season grasses in the early spring to increase production and to help extend the spring grazing cycle. RyzUp SmartGrass contains gibberellic acid, a naturally occurring plant growth regulator that promotes growth, and improves forage yields while maintaining quality when cool temperatures may limit natural plant growth.



RyzUp SmartGrass gives ranchers and dairy farmers a boost by getting pasture grass up sooner and keeping it green longer, reducing feed costs. Reprinted from ValentBioSciences.com.

Table #1. Results from the University of Illinois Dudley- Smith Farm RyzUp SmartGrass plots are: (20 gallons of water and 1% crop oil surfactant was applied at application time)

	2011*	2012	2013	2014	2015
Orchardgrass					
1.0 oz RyzUp	1,244	3,251	1,735	2,785	2,447
0.5 oz RyzUp	955	2,607	1,254	1,923	1,420
Check	980	1,628	1,022	1,468	926
Endophyte Free Fescue					
1.0 oz RyzUp	1,266	2,835	1,397	2,771	2,273
0.5 oz RyzUp	938	2,459	1,344	1,713	1,804
Check	766	1,650	1,118	1,238	903
Max Q Fescue					
1.0 oz RyzUp	1,081	2,853	1,504	2,152	2,585
0.5 oz RyzUp	774	2,792	1,313	1,888	1,652
Check	763	2,123	1,043	1,313	967

(*) surfactant was omitted in 2011 trial but included as recommended on the product label in all subsequent treatments (2012-2015).

Over the past 5-years, RyzUp SmartGrass was applied in the spring when soil temperatures reached 45 degree Fahrenheit (F) at the 4 inch level and when air temperatures ranged between 45 and 60 F. Treatments of RUSG were applied from the dates of March 28 to April 21 in years 2011 thru 2015, with the majority of treatments being made between March 28 and April 6. Scouting, targeting and treating pastures with cool season grasses at this time showed that cool season grasses typically had 2 to 3 leaves of new growth. Yield data in Table 1 was collected approximately 15 days after RUSG application. The data illustrates the variability and range of the growth rates of cool season grass pastures for each year. With each year being somewhat different resulting in a wide range of pasture growth rates, proper man-

Increasing Cool Season Pasture Production in the Spring Utilizing Plant Growth Hormones Continued.....

agement of cool season grass and legume pastures is critical for each grazing cycle.

As a result of RUSG treatments, the increase in pasture growth allows the options to start grazing 10 to 15 days earlier and/or to increase stocking density. In making the decision to use a product like RyzUp SmartGrass, producers will want to compare the cost of RUSG to the cost of dry matter feed from other feed sources. Examination of the results from the Dudley Smith Farm RUSG trials, the comparison of 2 treatment rates and 3 different grass species, demonstrated the 1.0 oz. treatment delivered an average yield increase of 1,091 pounds while the 0.5 oz. treatment delivered an average increase of 524 pounds in dry matter production in a 15 day growth period compared to the "check" average over the 5 year trial. At the 1.0 oz. RUSG treatment, average increase in yield by grass species was: Orchardgrass 1,265 pounds, Endophyte Free Fescue, 963 pounds, and Novel Max Q Fescue, 1,047 pounds. At the 0.5 oz. RUSG treatment rate, the increased in yields were: Orchardgrass, 435 pounds, Endophyte Free Fescue, 546 pounds and Novel Max Q Fescue, 591 pounds. Comparing the cost of dry matter of legume-cool season grass hay priced at $150.00 per ton, the cost per pound of dry matter would be approximately 9 cents; whereas the cost of increase production of cool season grasses with RyzUp Smart Grass was 2 ½ cents per pound of dry matter.

The application and use of RyzUp SmartGrass did not show a discernable effect on feed quality over the 5-year trail.

Edward N. Ballard, University of Illinois Extension Animal Systems Educator, Retired, Gary Letterly, Extension Educator, Energy and Environmental Stewardship

Outstanding Educator Award

The Illinois Forage and Grassland Board of Directors have named Dale Baird the 2015 Outstanding Educator. Dale has served Illinois Agriculture for many years in a number of positions with the University of Illinois Cooperative Extension Service and as a board member of the IFGC. Dale was recognized at the 2015 Illinois Forage Expo. The IFGC Board thanks Dale for his service to Illinois farmers.

Above: IFGC President, Kendall Guither (right) presents Dale Baird with the Outstanding Educator Award.

Thank You!

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Your support of Illinois Forage and Grassland Council is greatly appreciated!

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