

RYZUP SMARTGRASS: GROWTH PROMOTION FOR FORAGES

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Whenever we discuss grazing management we emphasize how proper grazing will produce the maximum amount of plant growth. Giving forage plants an adequate rest period after each grazing event is essential to allow growth and storage of carbohydrates for the next growth cycle. With grasses, leaving leaf area after grazing allows the plant to maintain photosynthesis and regrow faster. On a more basic level though, all plants regulate growth with hormones. These hormones are termed “plant growth regulators.” Auxin controls cell division and the direction of plant growth. Gibberellic acid (abbrev. GA) has three main functions in plants: 1) stimulate rapid stem and root growth, 2) induce mitotic division in the leaves of some plants, and 3) increase seed germination rate. Since the 1950’s researchers have been exploring how to use plant growth regulators commercially. In other words, can spraying additional amounts of natural hormones onto plants stimulate more growth resulting in higher yields or onto seeds to improve germination and initial root growth.

The plant hormone that has been used the most successfully commercially is gibberellic acid. It is sometimes used trigger germination in seeds that would otherwise remain dormant. It is also widely used in the grape-growing industry as a hormone to induce the production of larger bundles and bigger grapes, especially Thompson seedless grapes. It is used to increase fruit size and market value of cherries, blueberries, and a number of other fruits and vegetables. Starting about 10 years ago Valent BioSciences developed a formulation of gibberellic acid to stimulate grass growth. This product has been sold in Australia and New Zealand for several years under the name “ProGibb Smartgrass.” Forage producers there use it to stimulate perennial ryegrass growth during cooler months of the year when the grass is otherwise dormant or slow growing. This same formulation is now being sold in the U.S. under the tradename “RyzUp Smartgrass.” It even has an organic certification since it is a natural plant hormone. The important question in KY and surrounding states is, “Will RyzUp Smartgrass stimulate grass growth enough in KY to make it economically viable for forage producers?”

Research trials have been conducted in a number of states including KY, PN, MI, GA and others. We have worked with about 10 county agents in KY to establish demonstration strips in existing pastures and hayfields over the last three years. Results have been mixed in that in some producer fields we have seen improved yields and in other fields we have seen little difference in forage production. During this presentation I

will overview RyzUp Smartgrass research trials around the country and each of the demonstration projects in KY. I will discuss the potential application of this product for forage producers in the state including timing, application rate, and grazing or harvest period.