SEED RESEARCH OF OREGON
The germination of ideas

IDEAS IN PLAY

Red Coat Seed – Guards Your Investment

Seed coating has come a long way from when clay was added to seed, simply to improve the ballistic characteristics of small or light weight seeds and to stretch supplies. An additional reason for coating with earlier products was to prevent sticker shock from the higher priced seed of improved cultivars in species such as bermudagrasses. Although all of these continue to be valid reasons to coat seed, new technologies have resulted in additional benefits to the consumer. In some markets the benefits seen from coated seeds have made them the new standard.

Seed coatings are offered by many companies and most differ widely from each other. Many of the formulations are proprietary and vary from one company to another. Coatings may contain different ingredients including nutrients, fungicides, water absorbing polymers, biological organisms and colorants. The thickness can vary from a very thin film coating to a coating that increases the weight and size of a seed by 100%. Richardson et al (2010) found more of a benefit with small seeded species such as Kentucky bluegrass than tall fescue for the two coatings they examined. They also found more of a benefit from coated seeds on sandy soils. Coating technology has primarily been driven by the vegetable seed industry and is utilized in precision planting of high quality, high priced seed.

Benefits of Red Coat:

- When coated at 50% by weight, the turf manager should plant at a rate increased by 25-50% over the uncoated or normal seeding rate. This rate adjustment accounts for the reduced seed count of the coated seed by weight. Often the seeding rates normally used are to compensate for uneven distribution and less than optimal growing conditions and seed coatings can help with both of these issues. **(Example: For 1 lb. non-coated creeping bentgrass seed plant 1.25 to 1.5 lbs. of coated seed).**

Uncoated (raw) Creeping Bentgrass Seed

Red Coat Creeping Bentgrass Seed

- This does not increase the cost per 1,000 square feet of seed planted for using non-coated seed. In some cases it may actually be less.
- The coating makes the seed larger and heavier, thus easier to plant and reduces wind or irrigation movement of seed after planting. The coated seed maintains better seed to soil contact to enable the seedling to establish better. Coating may also reduce the amount of seed consumed by birds and insects.
- Red coating color and slightly larger size makes the seed easier to see where it has been planted. This improves seeding accuracy, especially when overseeding into existing stands.
- Minor nutrients contained in the seed coating can help with seedling establishment. The nutrients are directly in contact with the young seedling so are more readily available.
- A water attractant polymer in the coating helps the seed absorb water. Red Coat seed will germinate in the same time as raw seed, with no delays, or possibly even germinate slightly quicker depending on the site, soil, temperature and moisture conditions. The moisture wicking properties of the Red Coat materials provides a more consistent water source to help support the establishment of small seeded species.

Richardson, M., J. McCalla, and K. Hignight. 2010. Seedling emergence of tall fescue and Kentucky bluegrass as affected by two seed coating techniques. Arkansas Turfgrass Report 2009. Ark. Ag. Exp. Stn. Res. Ser. 579:99-103. (http://arkansasagnews.uark.edu/579-19.pdf)