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Via email

**Re: Justification for Converting Non-irrigated Common Areas to Bermudagrass**

Until recently tall fescue has been the standard for lawns in the south Mid Atlantic due to weather conditions that favor its growth about ten months out of the year. However, as evidenced by record-breaking heat and drought three of the last four years, environmental conditions have shifted to favor warm-season turfgrasses as well in many Mid Atlantic markets. The presence of weather conditions that support the growth of both cool- and warm-season turfgrasses is the defining characteristic of being located in the 'transition zone.' The only problem is that we can't grow either type extremely well in this zone.

Cool-season turfgrasses like tall fescue are desired because of their year-round green color and tolerance to varying environmental conditions. Tall fescue exhibits great quality in spring and fall and will often yellow out during the cold of winter. Most damaging are the hot and dry months of July and August when stands thin considerably and portions of stands often fail completely. Where irrigation is absent we have seen an increase in the incidence and severity of summer decline of tall fescue stands over the last few years.

Warm-season turfgrasses like bermudagrass have thrived in the increasingly hot and dry weather conditions the last several years. Bermudagrass exhibits fantastic quality May through October with fewer management inputs required on an annual basis compared to tall fescue. Bermudagrass will begin to go into dormancy following the first frost of the fall and will remain dormant until May. While this trait is undesirable to some, bermuda turf that is kept free of weeds throughout the winter presents an attractive, low maintenance lawn during this time. If a green lawn is desired throughout the winter months, bermudagrass can be overseeded with perennial ryegrass or painted in the fall.



In tall fescue lawns, bermudagrass is a weed. As easy as it is for bermuda to contaminate a tall fescue lawn it is equally difficult to remove. Selective removal via control products is expensive and time consuming. Spraying out with Roundup prior to fall seeding results in temporary unsightly conditions and is not effective unless done in consecutive years. Recently Mother Nature has favored the decline of non-irrigated tall fescue and correspondingly favored the progression of bermuda where already present. Many lawns that were originally planted to tall fescue are now a mix of both. Given these environmental and site factors that continue to favor it, bermudagrass should be seen as a viable alternative to the continual struggle to maintain quality tall fescue in non-irrigated situations.

The following lists some advantages and disadvantages of bermudagrass:

- Advantages:
- Excellent heat and drought tolerance
  - Excellent wear tolerance and recuperative capacity due to its spreading growth habit
  - Desirable texture and color
  - Quick color and growth response to fertilizer
  - Aggressive growth discourages weeds
  - Tolerates low mowing
  - Very few pest problems
- Disadvantages:
- Does not retain green color year-round; goes dormant after first hard frost
  - If overseeded with ryegrass for winter color, ryegrass needs to be chemically transitioned out in the spring
  - Poor shade tolerance
  - Aggressive runners can move into adjacent mulch beds
  - Winter kill can occur after severe winters

### **Facilitating the Transition to Bermudagrass**

Several years ago we initiated turf conversion programs in several markets throughout the Mid Atlantic and Southeast where site conditions are similar to those in the common areas at Kingsmill - greater than 50% bermuda and no irrigation. Through trial and error, we have found that a multi-step yet fairly simple approach yields the



best results. Depending on the aggressiveness of the program, a majority conversion to bermuda can be expected in as little as one growing season. Based on our experiences, it is recommended to knock out all tasks during the first season as customer patience tends to wane if extend the approach to more than one year.

Step 1: Eliminate existing tall fescue populations, either with non-selective Roundup treatments in winter dormancy or with selective treatment during the bermuda growing season. This gives bermudagrass seedlings room to establish and allows existing bermudagrass plants to fill in bare areas without the competition of tall fescue.

Step 2: Hydroseed or slit seed bermudagrass into the areas that were removed in Step 1 as well as any thin or bare areas that exist. This should occur in late March or early April to take advantage of predictable spring rainfall beyond the last frost date that will favor seed germination and subsequently allow new plants to establish over a full growing season. Seed-to-soil contact is extremely important for bermuda seeding success and we have found that a minimum of a ¼ inch blanket of matching topsoil, organic matter, or Penmulch is required for success. Simple aeration and overseeding is not a successful approach when establishing bermuda from seed. Preemergence weed control cannot be done during this time as to not interfere with seed germination.

Step 3: Follow a summertime fertilization regime - one pound of nitrogen fertilization every 4-6 weeks May through September. This will encourage the establishment of new seedlings as well as promote the spread of existing bermudagrass plants. Postemergence weed control should be done as necessary, especially since no preemergence control will have been applied in Year 1.

### **Bermudagrass Seed**

Hybrid varieties (Princess, Riviera) and improved common variety blends (Sunspot, Sunstar) of bermuda seed are commercially available. Hybrids cost around \$25/lb, compared to \$4/lb for the improved common blends. Both are sold as coated seed which makes the seeding rate 2 lbs/1000 sq ft or about 87 lbs/acre. ValleyCrest is currently transitioning several properties in the Carolinas using the improved



common variety blends, which has proven to be of acceptable quality for commercial properties and home lawns.

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