

EFFECT OF FOLIAR APPLICATION OF TRINEXAPAC-ETHYL ON THE RESPONSE OF A FESTUCA ARUNDINACEAN ROUGH OF DROUGHT AND HEAT STRESS.

Experimental Design

As of April 2011 we will carry out the trial in the rough at the Centro Nacional de Golf of the Royal Spanish Golf Federation, Madrid. The trial area will be a rough well maintained. Three different irrigation treatments: 100% irrigated (100), 50% irrigated (50) and no irrigation (0). And two trinexapac-ethyl (TE) treatments: TE application (TE) and no TE application (C). Three replicates per treatment, the size of each plot (replicate) will be 2 x 2 metres. The design will be a randomized complete block design.

Treatment

TE treatments will start April 15th, when tall fescue is actively growing. Three treatments 14 days apart. Application rate as labelled.

Drought stress treatments will start 14 days after the last TE application.

Determinations

- Regular determinations: April 15th, May 13th, June 10th, July 8th.
 1. General appearance (visual scale 1-9)
 2. Turfgrass height
 3. Yield (after 14 days without mowing)
 4. Leaf relative water content
 5. Proline and carbohydrates
- Final determination: July 22nd.
 1. All the regular determinations
 2. Leaf water potential
 3. Stomatal conductance
 4. Net photosynthesis

At the end of the experiment, a statistical analysis will be done to find out if any significant differences exist.