Seed production and maturation in annual bluegrass

Breeding systems in annual bluegrass, *Poa annua* L.

The purpose of this work was to investigate the breeding systems of annual bluegrass. Plants utilized for this study were collected from northeastern England. Apomixis was not operative in the plant materials evaluated. Seed production and viability was good after both self- and cross-fertilization.

Seed maturation was very rapid. Annual bluegrass is able to mature viable seeds on panicles which are removed from the plant only one or two days after pollination. In some cases viable seeds were formed from panicles or seed heads cut from the plant.

continued on page 18
The finest greens are planted with Warren STOLONS

Perfect even texture and color are maintained with clean, pure-strain WARREN’S STOLONS. Greens planted with seed do not hold their uniformity of color and texture as well as greens planted with stolons. They are apt to develop a “patchwork” look after a few years.

The cost of STOLONS over the cost of seed is insignificant compared to the overall cost of the establishment of a golf course. Why be satisfied with anything less than perfect greens only obtainable from pure-strain STOLONS?

Continued on page 15

Comments: This ability of annual bluegrass to produce viable seed so rapidly is unique. The ability to form seed heads at a cutting height of one-quarter inch is already well known. These two characteristics are important factors in the ability of annual bluegrass to produce an abundance of viable seed under normal putting green maintenance and contributes to its success as a weed. One annual bluegrass plant was found to produce over 350 viable seeds in a single growing season. This rapid, abundant seed producing ability results in a high population of annual bluegrass seeds in the greens soil. Injured, damaged or thinned areas in the green provide an ideal avenue for the germination and establishment of annual bluegrass from seeds lying at the soil surface.

Response of seedlings of Festuca Rubra varieties to environmental conditions.

The effects of light intensity, photoperiod and temperature on the growth habit of chewings fescue and two varieties of red fescue, Illahee and Pennlawn, were investigated. The two light intensities were 1,150 and 2,300-foot candles; the two photoperiods eight and 16 hours; and the temperature treatments involved a daily cold treatment at temperatures of 40° and 50° F.

Results of this study indicated that a daily cold treatment stimulated a more decumbent type of growth habit. The percentage of the continued on page 20
Here's a Pretty Profit Picture

Cordo-Hyde® Golf Shoe Laces are specified by many leading shoe manufacturers because they are interested in providing the ultimate in good looks and long wear for their customers.

Cordo-Hyde Golf Shoe Laces stand up to shock and chafe round after round — on wet fairways or the toughest rough. Stay tied, too. Available in black, cherry cordovan, mahogany, or white.

Your golf products distributor carries them — how about you?

USM Corporation
Research/Systems/Manufacturing
Boston, Mass. and St. Louis, Mo.

For more information circle number 248 on card

HEY PRO!
The custom club market is the fastest-growing, most profitable area in your field today. We are running ads like these in GOLF, GOLF DIGEST and GOLF WORLD each month, to remind your members that the name DARGIE stands for the finest in quality clubs.

Don't forget, 40% of this business is yours. If you don't have our current price list, write or call now.

Bert Dargie
GOLF CO.
2665 BROAD AVENUE
BLDG. SECTION 2
MEMPHIS, TENN. 38112
Phone 901-324-4688

CUSTOM MADE WOODS
#1 THRU #15
Steel or Aluminum Shafts

CUSTOM MADE PUTTERS
Including Famous "WON-PUTT" & "PRO'S OWN"

Dargie's "NEW" WON PUTT
• hand crafted
• precision brass blade
• solid persimmon back

For more information circle number 236 on card

BEARD
continued from page 18

decumbent plants produced increased as the length or intensity of the daily cold treatment was increased. The greatest decumbent type growth was produced by a combination of a daily exposure to low temperature, a sixteen-hour photoperiod and a light intensity of 2,300-foot candles.

The growth habit or the degree of erect versus decumbent type growth was highly correlated with the color of the lower leaf sheath of red fescue. Decumbent plants tended to have an entirely green lower leaf sheath while the upright plants tended to have a concentration of red pigment caused by the presence of anthocyanin pigments. Low temperatures tended to favor the development of green color in the lower leaf sheath while red pigmentation was enhanced by the higher light intensity and the longer photoperiod. The more decumbent type shoot growth of red fescue when exposed to low temperatures is similar to that which has been previously observed in Kentucky bluegrass.

Other papers of interest: