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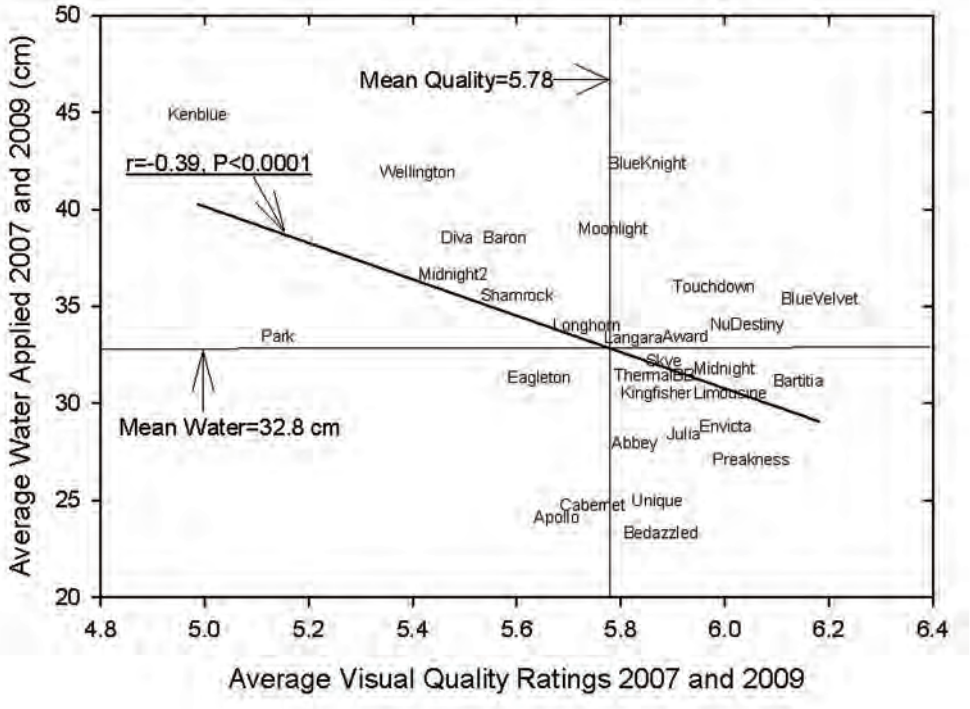
As a group, the Compact Midnight types remained above a quality of six for longer than the Common as well as the BVMG types, but also received more water than the Compact America and Mid-Atlantic groups (Fig. 3).

RELATIONSHIPS BETWEEN WATER APPLIED AND VISUAL QUALITY

Ideally, cultivars or groups that require the least water would also have the highest visual quality. Those relationships are illustrated in the scatter biplot in Fig. 6, in which cultivars with the most favorable characteristics appear in the lower right section. In general, irrigation applications were greater in bluegrasses with poorer quality (Fig. 6, upper left section). This pattern probably resulted from improved cultivars with morphological properties that both enhanced turf quality and reduced evapotranspiration (water use). Such improved properties include compact or dwarfed growth habits, horizontal leaf orientation, and greater shoot density. All 15



▲ **Figure 6. WATER APPLIED TO KENTUCKY BLUEGRASS CULTIVARS AND HYBRID BLUEGRASSES** versus average visual quality ratings on a 1-9 scale with 9=optimum and 1=brown turf. Data were averaged over the periods June 19 - Oct. 1, 2007 (105 days) and June 22 - Oct. 7, 2009 (108 days).