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Understanding the *Poa annua* Life Cycle

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An upright-growing P. annua plant persisting perennially. Photo by Jim Brosnan.

Poa annua is an interesting species because this plant can be considered a weed or form contiguous stands of desirable turfgrass. A new *Crop Science* review explores the current understanding of the *P. annua* life cycle along with taxonomical discrepancies and knowledge gaps.

Although the Latin name *annua* indicates *P. annua* has an annual life cycle, thousands of perennial ecotypes have been identified with variable morphology. Despite nearly 50 taxa described in literature, only two are used readily in turfgrass research: *P. annua* var. *annua* and *P. annua* var. *reptans*. With more than 50 taxa of *P. annua* catalogued, the use of only two is also impractical.

Morphological characteristics have been used to define the life cycle of *P. annua* in lieu of actual plant mortality data. *Poa annua* var. *reptans* is often described as perennial in that ecotypes exhibit a lateral growth habit and produce few seedheads whereas var. *annua* is described as annual in that it grows upright and is a prolific seed producer. Original taxonomical descriptions from the 1800s do not mention life cycle and only categorize plants based on morphology. We contend that the *P. annua* life cycle should not be determined by morphological characteristics that can be influenced by management.

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Carroll, D.E., Brosnan, J.T., Trigiano, R.N., Horvath, B.J., Shekoofa, A., & Mueller, T.C. (2021). Current understanding of the *Poa annua* life cycle. *Crop Science*.

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