

Biology Of Pigweed

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Agriculture is facing a major challenge from a native weed that has followed the plow throughout the southern United States: Palmer amaranth or pigweed. Pigweed has properties that make it very competitive within our agricultural systems.

Pigweed is an annual plant that competes extremely well for moisture, soil nutrients, and light. Many published accounts document pigweed growing 2-3" inches a day and trophy 'red-wood class' pigweeds are discussed reverently by both hoe crews and broken down combine operators. Ken Smith measured 1.8 MILLION seeds produced by such a pigweed in Arkansas.

Unfortunately, the damage is not just related to size. Because pigweed is an excellent competitor it is setting back your crop even during the crucial early stand development. Pigweed can hurt your yields long before it canopies over your crop.

Many people say pigweeds like it hot, and this

is true. Pigweed has a C4 metabolic pathway which means it can perform better under hot and dry conditions than C3 plants like soybean. Even though the corn you grow may be C4, when the crop is drying down for harvest pigweed can also be thriving in your previously clean field.

Herbicide resistance is the big issue we are currently facing with regard to pigweed. Pigweed has developed resistance to: ALS, Atrazine, Prowl, and Glyphosate. Pigweed's ability to work its way around herbicides forces management of this plant to utilize a diverse set of tools.

Prevention can be an important tool in your pigweed fight. Identify your clean fields and keep them clean by not bringing seeds in with your equipment. Managing the seed bank in your soil is also important. Anything you can do to prevent seed production is a must. Δ

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