Aquatic Herbicide Requirements Determining Tank Capacity -- Mixing Procedures The Importance of Calibration -
Herbicide Resistance -- Brassinosteroids, Gibberellins, Plant Growth Regulators - 2012-12-06 Chemistry of Plant Protection, Volume 7, covers critical review articles on new aspects of herbicide resistance, serving the needs of research scientists, pesticide manufacturers, government regulators, agricultural professionals, and scientists from related fields.
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Plant Growth Regulators and Herbicide Antagonists - Jeanne Colbert Johnson - 1982
Natural growth controlagents; General growth control agents; Control agents for tobacco; Control agents for cereals and plants. Part 1, Herbicides and Plant Growth Regulators, Part 2, Insecticides and Fungicides, provide a major bibliography, as each entry is fully referenced. Contents include metabolic pathways, mechanisms, and pathways, together with useful details on physical-chemical properties and mode of action, and related compounds. Both parts are organized by class of chemical for easy reference. There are separate entries for each pesticide, covering most commercially available chemicals in use today. In addition, an up-to-date class procedure provides the readers with an informed summary of key similarities and significant differences between individual chemicals. Information is based primarily on literature from the past 10 years of research, together with some important, previously unpublished work provided by the agricultural community. Each entry includes extensive indexing to facilitate the rapid location of required information and the comparison of related compounds. Metabolic Pathways of Agrochemicals is an invaluable reference for chemists, biochemists and biologists working in the discovery, development and registration of agrochemicals, as well as scientists in related areas such as design and mode of action of pharmaceuticals.
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Herbicides - Gunter Zweig - 2013-10-22
Analytical Methods for Pesticides, Plant Growth Regulators, and Food Additives, Volume IV: Herbicides contains detailed analytical procedures for analysis of 22 different herbicides. Plant growth regulators. Each chapter of this 27-chapter volume covers the chemical and biological properties, history of development, methods of synthesis, uses, uses and safety of plant growth regulators. The effects of plant growth regulators on horticultural plants and food crops. The book discusses developments based on the biological technique, thin-layer chromatography and their general applications; the analytical aspects of pesticide residue analyses in the environment; and specific analytical methods for the determination of residues in edible crops and food products. The book also includes a comprehensive summary of the methods and uses of plant growth regulators. Plant growth regulators consist of organic molecules produced synthetically and used to modulate plant growth. There are several classes of plant growth regulators, including auxin, gibberellic acid, cytokinin, abscisic acid, and ethylene. Each class provides the reader with an informed summary of key similarities and significant differences between individual chemicals. Information is based primarily on literature from the past 40 years of research, together with some important, previously unpublished work provided by the agricultural community. Each entry includes extensive indexing to facilitate the rapid location of required information and the comparison of related compounds. Metabolic Pathways of Agrochemicals is an invaluable reference for chemists, biochemists and biologists working in the discovery, development and registration of agrochemicals, as well as scientists in related areas such as design and mode of action of pharmaceuticals.
Poa annua (annual bluegrass; ABG) is an invasive weedy species in turfgrass. Herbicides and plant growth regulators (PGRs) are often used for ABG control, providing limited or inconsistent results. Identifying shifts in ABG populations in response to herbicide or PGR treatments decreased ABG population variability in Michigan, but increased variability in Nebraska. Season-long treatments of trinexapac-ethyl or bispyribac-sodium (bispyribac) at a low rate effected genetic structure of populations at all locations. However, ABG populations that were affected by an individual herbicide or PGR did not respond consistently among locations. Bopyribac treatments increased ABG population variability in Michigan, but decreased variability in Indiana and Nebraska. Trinexapac-ethyl treatments decreased ABG population variability in Michigan and Indiana, but increased variability in Nebraska. This study provides a genetic basis in understanding how herbicides or PGRs impact ABG populations over the long term and our results may help explain inconsistencies in chemical control of ABG.

Changes in Poa Annua Populations in Response to Herbicides and Plant Growth Regulators - Jesse Brown - 2013

Poa annua (annual bluegrass; ABG) is an invasive weedy species in turfgrass. Herbicides and plant growth regulators (PGRs) are often used for ABG control, providing limited or inconsistent results. Identifying shifts in ABG populations in response to herbicide or PGR treatments decreased ABG population variability in Michigan, but increased variability in Nebraska. Season-long treatments of trinexapac-ethyl or bispyribac-sodium (bispyribac) at a low rate effected genetic structure of populations at all locations. However, ABG populations that were affected by an individual herbicide or PGR did not respond consistently among locations. Bopyribac treatments increased ABG population variability in Michigan, but decreased variability in Indiana and Nebraska. Trinexapac-ethyl treatments decreased ABG population variability in Michigan and Indiana, but increased variability in Nebraska. This study provides a genetic basis in understanding how herbicides or PGRs impact ABG populations over the long term and our results may help explain inconsistencies in chemical control of ABG.
Annual bluegrass (Poa annua L.) is a problematic weed species found in many turfgrass stands, particularly golf course putting greens. This weed is light green in color, has poor heat and drought tolerance, and produces many seeds making it undesirable on putting greens. The objectives of this research were to: a) investigate the use of the herbicide bispyribac-sodium alone or in combination with plant growth regulators for annual bluegrass control; b) determine the efficacy of plant growth regulators on annual bluegrass seedhead suppression when applied once, or followed by a sequential application; and c) determine how chemicals applied at different growth stages of annual bluegrass affect shoot growth and seedhead development. Field and greenhouse research was conducted during 2010, 2011, 2012 and 2013 at multiple golf courses throughout central Missouri. Treatments of bispyribac-sodium alone or in combination with paclobutrazol demonstrated safety during application, annual bluegrass biomass was reduced 19 and 31% following applications of ethephon + trimupac-ethyl or paclobutrazol, respectively.

Management of Annual Bluegrass (Poa Annua L.) Using Post-emergence Herbicides and Plant Growth Regulators - John B. Hagenaard - 2014

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