Title: "The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops".

Organizers: D.R. Forney, DuPont Crop Protection; Harold Coble, USDA

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Justification and Objectives: The continuing expansion of row-crop acres planted to glyphosate-tolerant seed, the associated increasing reliance on glyphosate as the core herbicide in such crops, and the continuing evolution of weed resistance and shifts compels the weed science community to refresh awareness and visibility of the other associated herbicides that must be maintained as integral components of a sustainable weed management approach across the landscape. The objectives of the proposed symposium are to:

1) Review the basic needs for integrated weed management within and across several major ecoregions and associated weed/crop complexes in the U.S., including the fit and performance of herbicides complementary to glyphosate;

2) Review the basic characteristics of several major herbicide classes and the predominant representative active ingredients in the context of evolving weed management needs;

3) Provide a forum for discussion of the strengths and weaknesses of the various tools currently available, and identification of gaps presented by the evolving and developing weed resistance and shifts.

Target audience: Weed science community generally, all who are interested in the role and fit of various herbicides complementary to glyphosate in glyphosate-tolerant crops.

Associated sections: Agronomic Crops

Titles and speakers:

1) The Status and Needs of Integrated Weed Management in Glyphosate-Tolerant Crops in the U.S. H. Coble*; USDA, Cary, NC The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

2) Herbicide usage and trends in glyphosate tolerant crops in the U.S. L. Gianessi*; CropLife Foundation, Washington, DC The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops
3) **Weed management status and needs in glyphosate-tolerant crops in the Southeast.** A. C. York*; North Carolina State University, Raleigh, NC The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

4) **Weed management status and needs in glyphosate tolerant crops in the Delta** D. B. Reynolds*; Mississippi State University, Mississippi State, MS The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

5) **Weed management status and needs in glyphosate-tolerant crops in the Eastern corn belt.** M. M. Loux*; The Ohio State University, Columbus, OH The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

6) **Weed management status and needs in glyphosate resistant crops in the Mid-West** M. D. Owen*; Iowa State University, Ames, IA The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

7) **Weed management status and needs in glyphosate tolerant crops in the Western corn belt.** P. Westra*; Colorado State University, Ft. Collins, CO The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

8) **ALS herbicides - role and fit in weed management programs in glyphosate tolerant crops.** D. W. Saunders*; 1 D. R. Forney; 2 T. K. Chicoine; 3 D. D. Dawes; 4 K. A. Peeples; 5 J. M. Green; 1DuPont Crop Protection, Johnston, IA, 2DuPont Crop Protection, Newark, DE, 3DuPont Crop Protection, Noblesville, IN, 4Pioneer Hi-Bred International, Newark, DE The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

9) **Photosystem II (PS II) inhibitor herbicides - Role and fit in weed management programs in glyphosate tolerant crops.** C. Foresman*; L. Glasgow, G. Hill; Syngenta Crop Protection, Inc., Greensboro, NC The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

10) **Chloroacetamide herbicides - Role and fit in weed management programs in glyphosate tolerant crops.** R. Cole*; Monsanto Company, St. Louis, MO The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

11) **PPO herbicides - Role and fit in weed management programs in glyphosate tolerant crops** J. A. Pawlak*; Valent USA Corp., Lansing, MI The
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12) **Auxinic Herbicides: Role and Fit in Weed Management Programs in Glyphosate Tolerant Crops.** T. R. Wright*, B. C. Gerwick, R. S. Chambers, G. A. Hanger, D. Fonseca, D. M. Simpson; Dow AgroSciences, Indianapolis, IN The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

13. **HPPD herbicides - Role and fit in weed management programs in glyphosate tolerant crops.** R. Liebl*, T. Seitz; BASF Corporation, Research Triangle Park, NC, BASF AG, Ludwigshafen, Germany The Role, Value, and Importance of Complementary Herbicides for Weed Management in Glyphosate Tolerant Crops

Wrap-up Integrated Weed Management in Glyphosate Tolerant Crops, Future Outlook – Group discussion