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Sponsored by: Great Plains Agriculture Council and North Dakota State University.



Leafy Spurge Task Force meeting and symposium

25 - 27 July, 1995 Radisson Hotel, Fargo, North Dakota

Program

Tuesday, July 25

10:00	Registration - Coffee
1:10	Welcome - Opening Remarks Don Galitz Dr. Robert Todd - Director North Dakota Agricultural Experiment Station

Cal Messersmith - Moderator

Unit, Sidney, MT. 1:40 USDA APHIS field insectory establishment and redistribution of leafy spurge biological control agents - How it's working on a national scale - Bob Richard, USDA/APHI/PPQ, Forestry Sciences Lab, Montana State University, Bozeman, MT. 2:00 PPQ insectary sites in North Dakota - Keith Winks, USDA/APHIS/PPQ, Bismarck, North Dakota.	Cai Miesse	Smith - Model atol
control agents - How it's working on a national scale - Bob Richard, USDA/APHI/PPQ, Forestry Sciences Lab, Montana State University, Bozeman, MT. 2:00 PPQ insectary sites in North Dakota - Keith Winks, USDA/APHIS/PPQ, Bismarck, North Dakota. 2:20 Chamaesphecia hungarica - current status of quarantine clearance and field establishment - Paul Parker, USDA/APHIS, Mission Biological Control Center, Mission, Texas 2:40 Collection and redistribution of leafy spurge biological control agents from North Dakota insectary and research sites - R.B. Carlson, Entomology Department, North Dakota State University, Fargo, North Dakota.	1:20	Insects & informationage - Neal Spencer, USDA/ARS, Range Weeds and Cereals Research Unit, Sidney, MT.
 Dakota. 2:20 Chamaesphecia hungarica - current status of quarantine clearance and field establishment - Paul Parker, USDA/APHIS, Mission Biological Control Center, Mission, Texas 2:40 Collection and redistribution of leafy spurge biological control agents from North Dakota insectary and research sites - R.B. Carlson, Entomology Department, North Dakota State University, Fargo, North Dakota. 	1:40	control agents - How it's working on a national scale - Bob Richard, USDA/APHI/PPQ,
Paul Parker, USDA/APHIS, Mission Biological Control Center, Mission, Texas 2:40 Collection and redistribution of leafy spurge biological control agents from North Dakota insectary and research sites - R.B. Carlson, Entomology Department, North Dakota State University, Fargo, North Dakota.	2:00	
insectary and research sites - R.B. Carlson, Entomology Department, North Dakota State University, Fargo, North Dakota.	2:20	<i>Chamaesphecia hungarica</i> - current status of quarantine clearance and field establishment - Paul Parker, USDA/APHIS, Mission Biological Control Center, Mission, Texas
3:00 Break	2:40	insectary and research sites - R.B. Carlson, Entomology Department, North Dakota State
	3:00	Break

Bob Carlson - Moderator

	Entomology, North Dakota State University, Fargo, North Dakota.
3:40	DNA characterization of Aphthona spps Lloyd Wendel, USDA/APHIS, Mission, Texas.
4:00	Simple techniques for distributing <i>Aphthona</i> flea beetles from established field insectary sites - Rich Hansen, USDA/APHIS, Forestry Sciences Lab, Montana State University, Bozeman, MT.
4.20	

Dispersion of Aphthona Species within release sites - Donald Mundal* and R.B. Carlson,

4:20 Systems approach with biological agents for leafy spurge control - Jeff Nelson, Department of Plant Sciences, North Dakota State University, Fargo, North Dakota.

3:20

4:40 Biocontrol of leafy spurge in Manitoba - Progress to date and prospects for the future - Carla Allen, Manitoba Agriculture, Carman, Manitoba.

Wednesday, July 26

Rod Lym - Moderator

- 8:00 The economic impact of leafy spurge on conservation reserve program land in North Dakota Steven Hirsch, USDA/APHIS/PPQ, Bismarck, North Dakota.
- 8:20 Leafy spurge management by combining sheep grazing with fall-applied herbicides George Beck, Colorado State University, Ft. Collins, CO.
- 8:40 Defoliation effects of leafy spurge on sheep rumen microorganisms JoAnna Roberts, Department of Animal & Range Sciences, Montana State University, Bozeman, MT.
- 9:00 Multi-species grazing of leafy spurge infested rangeland in North Dakota. Chad Prosser*, Kevin Sedivec and William T. Barker.
- 9:20 Intensive grazing of angora goats on leafy spurge infested rangeland. Kevin Sedivec*, William T. Barker and Chad W. Prosser, Animal and Range Sciences, North Dakota State University, Fargo, North Dakota.
- 9:40 Break Coffee

Dave Davis - Moderator

- 10:00 On the Biology of Leafy Spurge Don Galitz, Department of Botany, North Dakota State University, Fargo, North Dakota.
- 10:20 Cloning of GRP (growth response) genes which are induced during breaking of quiescence in root buds of leafy spurge David Horvath, USDA/ARS, Biosciences Research Lab, Fargo, North Dakota.
- 10:40 Relatedness of North American and European leafy spurge based on DNA markers Martha Rowe, Department of Agronomy, University of Nebraska-Lincoln, Lincoln, Nebraska.
- Esters of quinclorac as possible leafy spurge herbicides: absorption, translocation, metabolism and toxicity. G.L. Lamourex* and D.G. Rusness, USDA/ARS, Biosciences Research Lab, Fargo, North Dakota.
- 11:20 Effect of leafy spurge biotype and herbicide application on *Aphthona* spp. establishment. R.G. Lym*, R.B. Carlson and D.A. Mundal, Department of Plant Sciences, North Dakota State University, Fargo, North Dakota.
- 12:00 Luncheon provided

Don Galitz - Moderator

- 1:00 Preliminary assessment of effect of prescribed fire upon establishment of *Aphthona nigriscutis* in leafy spurge David Fellows, National Biological Service, Northern Prairie Science Center, Jamestown, North Dakota.
- 1:20 Herbicides and grass competition for leafy spurge control in North Dakota 1995. K.M. Christianson*, R.G. Lym and C.G. Messersmith, Department Plant Sciences, North Dakota State University, Fargo, North Dakota.
- 1:40 Methods to enhance competitiveness of other species with leafy spurge. R.T. Wallander* and B.E. Olson, Department of Animal and Range Sciences, Montana State University -Bozeman, Bozeman, MT.
- 2:00 Leafy spurge control with imazameth. R.A. Masters* and F. Rivas-Pantoja, Agricultural Research Service, University of Nebraska-Lincoln, Lincoln, Nebraska.
- 2:45 Leave for Ekre Ranch transportation provided History of ranch

Plots

Spurge control program

6:00 BBQ at Runck Ranch

Thursday, July 27

8:00 Discussion Groups

9:30 Business Meeting: There will be a discussion of the future of this group's meetings, as the

Great Plains Agricultural Council (GPAC) will terminate its existence on September 30, 1995.

The Leafy Spurge Task Force has existed under the auspices of the GPAC.

Leafy Spurge Symposium Posters

Jennifer Birdsall, USDA-ARS Rangeland Weeds Lab

Title: Image Analysis to Determine Vegetative Cover of Leafy Spurge

By: J.L. Birdsall, P.C. Quimby, Jr., T. Svejror & B. Sowell.

David G. Davis, USDA-ARS

Title: IAA Partially Counters the Effect of a Wide Range of Root Formation

Inhibitors in Leafy Spurge.

By: David G. Davis

D. Stuart Frear, USDA-ARS

Title: Induced Frost Tolerance in Leafy Spurge Roots: Changes in Carbohydrate Metabolism

By: D. Stuart Frear and Harley R. Swanson

John Lankow, Dept of Botany, NDSU

Title: Ultrastructure of Euphorbia esula Root and Crown Buds

By: John Lankow and Don Galitz

Robert A. Masters, University of Nebraska

Title: Imidazolinones Improve Ecological Restoration of Great Plains Grasslands

By: R.A. Masters, D.D. Beran, and R.E. Gaussoin

Julie Schroer, Dept of Botany, NDSU

Title: G.I.S. Analysis of Leafy Spurge Distribution

By: Julie Schroer, C.S. Balachandran, Don Galitz