Forage Cultivar Trials

Northern Research Group
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FORAGE CULTIVAR TRIALS

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FOREWORD

This report is the eighth for a special series of field trials conducted by the Agriculture Canada Research Station at Beaverlodge in cooperation with Alberta Agriculture.

The objective of this program is to provide relative information on seed production capability and general adaptability of named foreign cultivars of perennial grasses and legumes in northern Alberta. The information assists the Canadian forage seed industry in the development of production contracts and seed export markets. Emphasis is on crops economically suitable for the region and which currently form part of Canada's forage seed export industry.

The following test sites were selected to represent the major agronomic soils of the region.

1. Beaverlodge A. Research Station (SE-1-72-10-W6th)

   Dark Gray Solod (Esher clay) to Dark Gray Luvisol (Hythe fine loam).

2. Beaverlodge B. Foster Farm (SE-25-71-10-W6th)

   Near Beaverlodge, Alberta. Orthic Humic Gleysol (Goose fine loam to Codner clay).

3. Falher. Beaupre Farm (NW-1-78-21-W5th)

   Near Falher, Alberta. Dark Gray Solod (Falher clay) to Solonetzic Gray Luvisol (Nampa clay).

4. Fort Vermilion. Experimental Farm (NW-13-108-13-W5th)

   Dark Gray Luvisol (Leith coarse loam) to Orthic Gray Luvisol (Culp coarse loam).

5. Gimle. Driedger Farm (SW-30-72-10-W6th)

   Near Beaverlodge, Alberta. Solonetzic Dark Gray Chernozemic (Albright clay) to Solonetzic Gray Luvisol (Hazelmere clay).

6. High Level. Fedeyko Farm (NW-35-109-17-W5th)

   Near High Level, Alberta. Orthic Gray Luvisol (Davis fine loam) to Dark Gray Luvisol (Tangent fine loam).

Section A

Data presented in this section has been collected from stands established at the various test sites described above.

Plots comprise of four rows, 30.5 cm (1 foot) apart, 6.1 metres (20 feet) long, and are replicated 4 times. Weeds are controlled by mechanical and chemical means. Plots are fertilized annually in the autumn.

Seed and herbage (dry matter) yields are expressed as actual production per hectare and as a percent of a designated (*) standard. The Least Significant Difference at the 5% level is also presented for each test. Winter

survival is shown by a hardiness scale of 0 to 9, with 9 being the best.

Section B

Data presented in this section has been collected from screening trials established at the Beaverlodge Research Station. The purpose of these trials is to determine which cultivars should be tested at the various test sites of Part A.

Plots comprise of two rows, 30.5 cm (1 foot) apart, 6.1 metres (20 feet) long, and are replicated 3 times. Plot maintenance is the same as for Part A.

Seed and herbage yields are expressed by a 0 to 5 performance scale, with 5 being best. Winter hardiness is shown by a hardiness scale of 0 to 5, with 5 being best. Cultivars rated above 3 in the above three categories will be considered for further testing in Part A.

Section C

Data presented in this section contains a summary of forage seed yields collected from the various test sites established in northern Alberta. Only those cultivars licensed in Canada and cultivars eligible for certification under the OECD scheme are listed.

Environmental data prepared by Mr. Peter Mills, Beaverlodge Research Station.

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Evaluation of this publication and suggestions for improvements will be greatly appreciated and should be directed to:

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Cover Photo: Farm scene courtesy of the Alberta Photograph Library

TABLE OF CONTENTS

Section B - Screening Trials 1983-1984

Section C - Forage Seed Yield Summaries