



Alberta 4-H Bison Project



Leader Manual

Alberta
AGRICULTURE, FOOD AND
RURAL DEVELOPMENT

The 4-H Motto

“Learn to Do By Doing.”



The 4-H Pledge

I pledge:

My **Head** to clearer thinking,
My **Heart** to greater loyalty,
My **Hands** to larger service,
My **Health** to better living,
For my club, my community and my country.

The 4-H Grace

(Tune of Auld Lang Syne)

We thank thee, Lord, for blessings great
on this, our own fair land.

Teach us to serve thee joyfully,
with head, heart, health and hand.

Published by:

4-H Branch

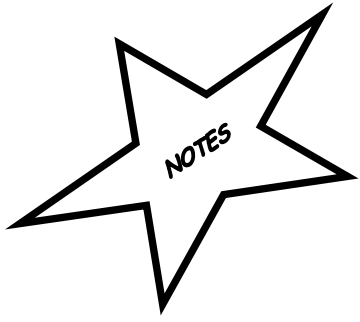
Alberta Agriculture, Food and Rural Development
Room 200, 7000-113 Street, Edmonton, Alberta, Canada T6H 5T6
Check out our web site at <http://www.4h.ab.ca>

No portion of this manual may be reproduced without written permission from the 4-H Branch of Alberta Agriculture, Food and Rural Development. Drafted by Leila Milne, 2002.

Revised May 2003/css

Table of Contents

4-H Bison Project	5
Alberta 4-H Bison Project Grid	7
Bison Project Outline	9
Welcome	13
Bison History	25
Digestion of the Bison	29
Nutrient Requirements	37
Feeds for Bison	43
Parasites of the Bison	49
Bison Herd Health	55
Breeding and Reproduction	59
The Newborn Calf	65
Bison Handling	71
Range and Pasture Management	75
Business Management	79
Marketing Bison	85
Today's Bison Industry	89
Alberta 4-H Law	93
Quotes	95
Bibliography	99
Evaluation	102



Alberta 4-H Bison Project - Leader

4-H Bison Project

The Alberta Bison project, new in 2000, is an exciting new opportunity to experience the bison industry. The variety of project options available enable members to gain knowledge about Alberta bison. Members are not required to own an animal to participate in any bison project. Members who have access to a herd of bison, either at their own farm or a neighbor's farm, may participate in the project. There are three different types of projects available to members. They are:

Exploring bison

This is the ideal project for members who are interested in the bison industry but do not have access to a bison herd. Interested members may choose to get involved in a number of self directed projects that will allow them to learn about the bison industry. The options include bison history, folklore and the value of the numerous bison products and by-products. Achievement day for this project may require a display on one aspect of the industry they have studied, including their project book.

Bison herd observations

Members that have access to a bison herd, either at home or a neighbour's, may choose to do a bison observation project. With this project, members will monitor a specific herd and record their observations in a record book.

Within the herd project, 4-H members may choose to select one project animal to observe and record the behaviour of. They will then monitor the social order of the entire herd, and determine the role that the selected animal plays within the larger herd. Other possibilities under the Bison herd project may include the effects of the herd on the environment, methods of marketing a bison operation, or developing a management system. Senior members may even choose to develop a research project that will provide valuable information to bison producers. The possibilities are endless!

Alberta 4-H Bison Project - Leader

Carcass bison

Members choose a weanling bull for their project animal. This animal will be fed until it is ready for market. At that time it will be sent for slaughter and carcass information will be obtained. The member will be responsible for choosing the best time to sell their animal, so that it obtains the optimum carcass grade. The carcass project may also include marketing the meat, or even developing recipes for a variety of meat processing methods such as burgers and jerky. Achievement day for this project may include a display of the photos, carcass data and marketing strategies.

Alberta 4-H Bison Project Grid

Use this grid to:

Identify the member and leader learning needs

Plan the club schedule for the year

Set member learning goals

Colour in completed sections to recognize member accomplishments

(Remember: You are only required to complete four to six chapters each year!!)

Section	Topics		
Introduction	Why the bison project is important? Bison Advantage Project Possibilities		History of Bison in Alberta
Nutrition	Digestion in the Bison	Nutrient Requirements	Feeds for Bison
Herd Health	Parasites / Disease		Herd Health
Reproduction	Breeding & Reproduction of Bison		The Newborn
Management	Handling & Facilities	Range and Pasture Management	Record Keeping
Marketing	Marketing Your Bison		4-H Law!
Research	Researching Today's Bison		

Member: _____

Leader: _____

Date started: _____ Date completed: _____



Bison Project Outline

Introduction

- Why does 4-H have a Bison Project?
- What is the Bison Advantage?
- What are the project possibilities?

Brief history of North American bison

- 60,000,000
- elimination of the buffalo
- recovery of the bison
- Grant MacEwen - Buffalo Sacred and Sacrificed
- Video - "Seasons of the Buffalo"

Nutrition

digestion in the bison

- Monogastric/Ruminant
- About digestion
- Parts of the digestive system

Nutrient requirements

- Five Essential Nutrients
- Who needs Nutrients?
- How to get Nutrients?

Feeds

- roughages and grains
- palatability
- intake - quality
- requirements for feeding different groups

Taking care of the newborn calf

Bison herd health

Alberta 4-H Bison Project - Leader

Parasites and diseases

- negative status herd
- TB, Brucellosis, etc.

Herd health

- Cow/calf, Heifers & Bulls
- Vaccination programs

Reproduction

Breeding

- fertility, etc.
- Genetics

Calving

The newborn

Managing the herd

Bison handling and facilities

- Temple Grandin
- Flight Pattern
- Understanding bison behaviour for less stressful handling
- Facility design
- Transportation
- Ear Tagging
- Horn or dehorn
- Bud Williams

Range and pasture management

- Grazing practices
- How grass grows and regrowth after grazing
- Confinement Feeding
- Finishing program, how much do you feed

Alberta 4-H Bison Project - Leader

Record keeping

- trace back/commission
- genetics / registry
- regulations / organizations
- herd records

Alberta 4-H Bison Project - Leader

