

Bison Production;

An analysis of species, production potential,
market trends and management
considerations



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History of Bison



- ❧ Major symbol of the American West
- ❧ 300 years ago- 40 million
- ❧ 100 years ago- 1,500
- ❧ Today- 100,000
- ❧ Environmental success story








Today's Bison Business



- ❧ Production began around 1960's
- ❧ Industry collapse in 1999
- ❧ In 2004, health benefits were discovered by consumers
- ❧ In 2008, Bison meat sales grew by 10%
 - ❧ 52,267 head slaughtered
 - ❧ 125,000 head cattle slaughtered per day
- ❧ Demand is exceeding supply

Why Bison??



	EXTRA LEAN		A GOOD SOURCE OF IRON		LOW IN FAT AND SODIUM	
						
NUTRIENTS (per 100g)	BISON (grass-fed) ¹	BISON (grain-fed) ²	BEEF ³	PORK ⁴	CHICKEN ⁵	SALMON ⁶
<i>calories</i> (kcal)	107	109	243	152	119	168
<i>total fat</i> (g)	1.49	1.84	18.19	6.48	3.08	8.56
<i>sat. fat</i> (g)	0.68	0.69	7.32	2.24	0.79	1.50
<i>cholesterol</i> (mg)	62	62	66	55	70	62
<i>protein</i> (g)	22	22	19	22	21	21
<i>sodium</i> (mg)	50	54	57	45	77	47
<i>iron</i> (mg)	2.5	2.6	1.9	0.8	0.9	0.5

Understanding Production



- ❧ Bison are wild animals
- ❧ Selecting breeding stock
- ❧ Promotion of the breed vs. alteration of the breed
- ❧ Traits



Breeding Considerations



- ❧ Interference with cattle
- ❧ Breeding ages
- ❧ Bull to cow ratio
- ❧ Herd obstacles
- ❧ Gestation and timeline
- ❧ Genetic considerations



Nutritional Considerations



- ⌘ Efficient digestion vs. cattle
- ⌘ Weight loss during winter
- ⌘ Indicators of nutritional levels
- ⌘ Necessary nutrients



Environmental Considerations



Bison Health



- ❧ Adaptations to conditions
- ❧ Diseases
- ❧ Medical history of herd
- ❧ Experienced veterinarian



Finishing Procedures



- ✧ Grass vs. grain
- ✧ Fat ratios



Market & Potential



Types of Enterprises



- ❧ Farmer's markets
- ❧ Natural grocery stores
- ❧ Private restaurants
- ❧ Private consumers
- ❧ Hunting
- ❧ Large-chain grocery stores



Regulations



- ❧ Lack of grading of meat
- ❧ Regulations within the United States and Canada prohibits use of steroids and growth hormones
- ❧ “Never-ever” practice
- ❧ Interstate transportation regulations
- ❧ Butchering & shipping regulations within Wyoming

Production

constraints, parameters & resources



- ❧ Cody or Sheridan, WY area
- ❧ Breeding stock: Yearling Heifers and Yearling Bulls
- ❧ Herd size of 50 head
- ❧ Owner labor (part-time)
- ❧ Markets
- ❧ No borrowed capital (self-loaned)

General Sales



Gross Receipts Total \$67,000.14 (\$1,340.00/head)

Operating Costs Total \$32,304.99 (\$646.10/head)

Total Ownership Costs \$32,297.59 (\$645.95/head)

Total Costs \$64,602.57 (\$1,292.05/head)

Return to Capital, Risk & Mgmt \$2,397.57 (\$47.95/head)

Hunting



Gross Receipts Total \$89,400.00 (\$1,788.00/head)

Operating Costs Total \$32,304.99 (\$646.10/head)

Total Ownership Costs \$32,297.59 (\$645.95/head)

Total Costs \$64,602.57 (\$1,292.05)

Return to Capital, Risk & Mgmt \$24,797.43 (\$495.95/head)

Decisions & Conclusions



- More profit from a “hunting” enterprise
- A hunting enterprise has a lower risk associated
 - Nearly guaranteed income

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