

# Livestock Watering FACTSHEET

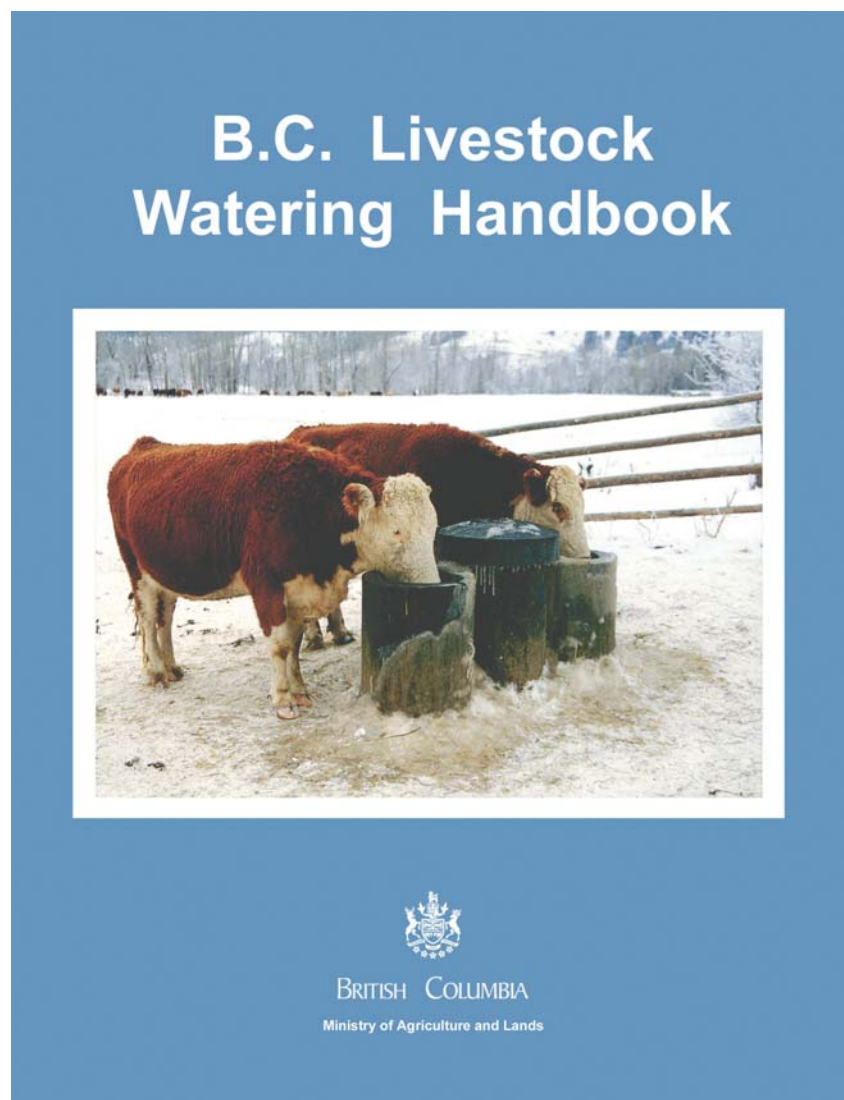


BRITISH  
COLUMBIA  
Ministry of Agriculture and Lands

Order No. 590.300-1  
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## B.C. LIVESTOCK WATERING HANDBOOK Outdoor Systems for Summer and Winter

### ◆ Table of Contents ◆



This Factsheet lists livestock watering information for planning and constructing both summer and winter watering systems. The Factsheets are grouped into seven sections as shown on the Table of Contents, next page.

All of the following Factsheets listed make up the ***B.C. Livestock Watering Handbook*** binder of information ( Order # 590.300-0 ).

# B.C. Livestock Watering Handbook

SECTION	FACTSHEET TITLE	PAGES	ORDER #
B.C. LIVESTOCK WATERING HANDBOOK	The complete group of all factsheets listed below ( In Binder format )	274	590.300-0
	Factsheet Table of Contents (this factsheet)	2	590.300-1
1. LIVESTOCK WATER REQUIREMENTS	Livestock Water Requirements: Quantity and Quality	5	590.301-1
	Water Quality and Cattle (PFRA publication)	6	590.301-2
	Algae, Cyanobacteria and Water Quality (PFRA publication)	4	590.301-3
	Enhancing Livestock Water Quality	4	590.301-4
2. ACCESSING WATERCOURSES DIRECTLY	Watering Livestock Directly from Watercourses	6	590.302-1
	Improved Livestock Access to Water Using Geogrids	2	590.302-2
	Offstream Watering to Reduce Livestock Use of Watercourses and Riparian Areas	6	590.302-3
3. DEVELOPING WATER SOURCES	Understanding a Water Licence	4	502.100-4
	Measuring Water Flow: Along Streams, From Pipes, and From Nozzles	9	501.400-1
	Sources for Livestock Water	2	590.303-1
	Accessing Ground Water Sources	6	590.303-2
	Accessing Surface Water Sources: Dugouts, Springs, Creeks, Rivers & Lakes	8	590.303-3
	Water Harvesters: Collecting Precipitation	4	590.303-4
4. DESIGNING LIVESTOCK WATERING SYSTEMS	Livestock Watering System Design #1: Flow Rate, Pressure, Storage & Trough Size	6	590.304-1
	Livestock Watering System Design #2: Selecting Small Diameter Pipe	7	590.304-2
	Livestock Watering System Design #3: Calculating Pumping Requirements	4	590.304-3
	Livestock Watering System Design #4: Design Worksheet	4	590.304-4
	Understanding Gravity-Flow Pipelines: Water Flow, Air Locks, & Siphons	12	590.304-5
	Selecting Flow-Through Rates to Frost-Proof Water Troughs	4	590.304-6
	Storage Tanks for Livestock Watering Systems	3	590.304-7
	Conversions of Water-Related Units	1	590.304-8
5. PUMPING LIVESTOCK WATER	Pumping Livestock Water: It's All About the Energy Choices!	6	590.305-1
	Pumps for Livestock Watering Systems	12	590.305-2
	Powering Livestock Watering Pumps	4	590.305-3
	Using Wind Energy to Pump Livestock Water	8	590.305-4
	Using Gravity Energy to Pump Livestock Water	2	590.305-5
	Using Solar Energy to Pump Livestock Water	4	590.305-6
	Using Livestock Energy to Pump Livestock Water	5	590.305-7
	Using Stream Energy to Pump Livestock Water	4	590.305-8
	Using A Hydraulic Ram to Pump Livestock Water	6	590.305-9
	Using A Modified Hydraulic Ram to Pump Livestock Water	4	590.305-10
6. SUMMER OUTDOOR LIVESTOCK WATERING	Summer Livestock Water Troughs	5	590.306-1
	Installing Summer Livestock Watering Systems: General Specifications and Requirements	16	590.306-2
	Rangeland Livestock Water Trough: Design, Installation and Maintenance	9	590.306-3
	Alternative Livestock Watering Facilities (Ducks CA publication)	22	590.306-4
	The Stockman's Guide to Range Livestock Watering from Surface Water Sources (PAMI publication)	36	590.306-5
7. WINTER OUTDOOR LIVESTOCK WATERING	Winter Considerations of Livestock Watering: Ice Formation, Freezing Index, and Frost Penetration	4	590.307-1
	Frost-Free Hydrants	2	590.307-2
	Winter Outdoor Livestock Watering	12	590.307-3
	Energy Free Water Fountains (PAMI publication)	4	590.307-4

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