
Swine Nutrition Guide

2nd Edition

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1st edition 1989

2nd edition 1995

Published by
Prairie Swine Centre Inc.
P.O. Box 21057
2105 8th Street East
Saskatoon, Saskatchewan
CANADA S7H 5N9

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ISBN: 0-9698426-1-9

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Production: Janice Cruise
Illustrations: Paul Freitag
Printing: Houghton-Boston Printers
Cover design: Joanne Harnett

Printed in Canada

Preface

The objective of the Swine Nutrition Guide remains the same: to provide the reader with a simple, easy-to-read source of practical information on the nutrition of the pig. Fundamentally, the pig has changed little since 1989 when the first edition was released; of course, genetic progress has been impressive, but the list of nutrients required by the pig and how they are used have remained much the same.

What has changed over the past 6 years is the tremendous growth in knowledge on how to define nutrient requirements and how to provide these nutrients more precisely and effectively with a keener eye to economics. Perhaps even more striking has been the rapid progress of pork producers in their ability to take advantage of this information and apply it “on the farm.”

The target audience of the Swine Nutrition Guide also remains the same: pork producers, workers in agribusiness and extension, and students. The common interest is information on how the pig uses nutrients, how to determine the nutrient requirements of a given class of swine and how feedstuffs can be most effectively employed in the diet. We sincerely hope that the Guide continues to fill this need - serving as a single source reference on these topics.

The book is not intended to make all readers pig nutritionists, but rather to provide an understanding and appreciation for the importance of a holistic approach to the subject; the pig does not exist in a vacuum and to be successful, feeding programs must be designed with many factors in mind, including genetics, the environment, herd health and, of course, economics.

The format of the second edition remains the same as the first. Chapters 1, 2 and 3 provide background on the more fundamental aspects of nutrition. Chapter 4 describes more than 40 common ingredients, including recommendations on how they might be used in pig diets. Chapter 5 then explains how to successfully formulate diets,

emphasizing a balanced approach to this sometimes complex subject but also briefly explaining the specific mechanics as well.

Chapters 6 to 9 discuss the day-to-day feeding of various classes of swine. Because nutrition cannot be considered in isolation, other aspects of management are also included. The authors have taken a more factorial approach to the design of feeding programs than in the first edition. This reflects what we believe to be a growing trend in pig nutrition - to define nutrient requirements on the basis of specific traits and desired levels of productivity, with economics being considered in all instances.

Chapter 10 considers the processing and manufacturing of pig diets, a step that is often taken for granted - at considerable peril. Mixing and delivery of feed to the pig represents the final step in the nutrition continuum. Failure to manufacture diets properly can erase any gains achieved through improved diet formulation or ingredient selection!

Chapter 11 provides information on toxins or antinutritional factors that may be present in feeds and feedstuffs, either as a consequence of contamination or due to the natural composition of the feedstuff itself. A new chapter (12) on water has been added to the second edition of the Swine Nutrition Guide, discussing both nutritional and quality issues.

We trust that the interests of the individual pig are not lost in the pages of this book. Readers will note that considerations of pig behaviour creep into many chapters as we learn more about this aspect of the animal that we serve - and who has served us so well. Our respect and affection for this creature, at once both intelligent and stubborn, fun and frustrating, neat and messy, motivate us to again dedicate the Swine Nutrition Guide to the pig.

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Acknowledgements

The authors are deeply indebted to many people without whom this book would never have been published. Many organizations shared their data freely and allowed its use in various parts of the book. We therefore recognize the following companies for information on amino acids (ADM Bioproducts, BioKyowa, Degussa, Heartland Lysine, Rhone Poulenc Animal Nutrition) and vitamins (BASF, Hoffman LaRoche).

Many individuals worked very hard to put this book together. Clerical and technical assistance was provided by Audrey McFarlane, Shawn Fairbairn, Leanne Varley and Gwen Scott.

Most of the photographs in this book were taken by Dave Mandeville of the University of Saskatchewan's Division of Audio Visual Services; other sources are noted on individual photos. Artwork, including all of the cartoons, was ably completed by Paul Freitag, while the cover was designed by Joanne Harnett. Printing and binding was handled by Houghton Boston Printers of Saskatoon.

Janice Cruise oversaw the total project, from literature searches through to editing and layout. For her patience, commitment and dependability, the authors extend a very special and heart felt thank you.

Finally, the second edition of the Swine Nutrition Guide was published due to the tremendous success of the first edition. We would therefore be remiss if we did not acknowledge the pig industry, without which this book would have no purpose.

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DIET INGREDIENTS



BLOOD MEAL



BONE MEAL



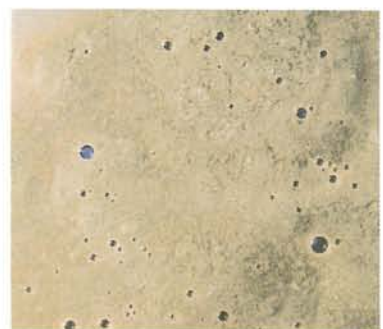
MEAT MEAL



FEATHER MEAL



FISH MEAL



FISH SILAGE (CAPELIN)



SKIM MILK POWDER



WHEY POWDER



ALFALFA: DEHYDRATED MEAL



BARLEY



BARLEY: HULLLESS



BARLEY: WITH ERGOT



BET PULP



CANOLA SEED



CANOLA MEAL



CANOLA: FINE SCREENINGS



CORN



CORN: CRACKED



CORN: DISTILLER'S GRAIN



CORN: MOLDY



CORN: GLUTEN MEAL



DRIED BAKERY PRODUCT



ERGOT



FABABEANS



FIELD PEAS (PRINCESS)



FIELD PEAS (TIPU)



LENTILS (LAIRD)



**MOLASSES
DEHYDRATED**



OATS



OATS: NAKED (TARA)



OATS: WILD OAT GROATS



RYE



RYE: WITH ERGOT



SOYBEAN SEED



SOYBEAN MEAL



SUNFLOWER SEEDS



**SUNFLOWER MEAL:
DEHULLED**



TRITICALE



WHEAT



WHEAT BRAN



WHEAT SHORTS



**CANOLA OIL: CRUDE,
DEGUMMED**



DICALCIUM PHOSPHATE



MHA LIQUID



DL-METHIONINE



L-THREONINE



L-TRYPTOPHAN



LYSINE HCl