



National Swine Nutrition Guide

Index for the National Swine Nutrition Guide

Acids, acidifiers,	73, 176 , 177
Aflatoxin,	209-211
Air quality,	285
Amino acids	
balance,	15-18 , 31-33
dietary recommendations,	68, 69, 87-89, 102, 105, 115-117, 129-131
ratios,	15-18 , 31-33
sources,	24-27, 30-36, 227-229
standardized ileal digestibility coefficients,	227, 228
standardized ileal digestibility explained,	16 , 34
Analytical variations,	203, 204
Anthelmintics,	174
Antibiotics,	173, 174
Basemix,	252-254
Batching sequence,	249
Betaine,	176 , 191
Boars	
breeding,	136-144
replacement,	97-107
Body condition scores,	112 , 113 , 124, 125
Botanicals and herbal supplements,	181
Breeding boars	
nutrient recommendations and feeding management,	136-144
By-product feed ingredient use,	301-311
Calcium:phosphorus ratio,	19 , 56
Carnitine,	122, 176
Chromium,	121, 176
Complete feed,	252-254
Concentrate,	252-254
Conjugated linoleic acid (CLA),	181, 189-193 , 291
Conversion factors,	313-315
Copper sulfate	
for growth promotion,	73, 174 , 175
Creep feeding,	77

Crude protein,	15, 225-229
Cull sows	
feeding management,	145-149
Diet and health interactions,	159-172
Electrolytes,	52
Energy	
content of ingredients,	26, 27, 223-226, 229
dietary density,	84
digestible,	14, 15, 225, 226, 229
metabolizable,	14, 15, 223-226, 229
net,	14, 15, 223-226, 229
sources,	22-29, 225, 226, 229
Enzymes	
carbohydrases,	184-188 , 280, 281
phytases,	18, 19, 54, 56, 184-188 , 281
proteases,	184-188 , 280, 281
Ergot,	209-211
Example diets,	150-158
Expanding,	248
Extrusion,	248
Fat	
quality,	200, 250
sources,	25, 26, 229
Feed additives	
acids, acidifiers,	73, 176, 177
anthelmintics,	174
antibiotics,	173, 174
botanicals and herbal supplements,	181
conjugated linoleic acid (CLA),	181, 189-193 , 291
enzymes,	184-188
flavors,	177
fructo-oligosaccharides,	179
galactooligosaccharide,	180
lactulose,	180
mannan-oligosaccharides,	180
mycotoxin binders,	210
phytase,	18, 19, 54, 56, 184-188
prebiotics,	179
probiotics,	177
ractopamine hydrochloride (Paylean®),	85, 149, 181, 194-198
sucrose thermal oligosaccharide caramel (STOC),	180
yeasts,	177, 178
yucca plant extract,	177
Feed budgets,	67, 93
Feed intake,	8, 66, 67, 82, 128

Feed processing and manufacturing,	245-251
Feed quality assurance,	199-206 , 214-222
Feeding systems,	255-261
Fiber	
for sows,	111, 112
gut health,	180
sources,	25, 27
Flavors,	177
Flushing,	101
Frost-damaged soybeans,	208
Fructo-oligosaccharides,	179
Galactooligosaccharide,	180
Gestating swine	
nutrient recommendations and feeding management,	108-122
Gilts	
replacement,	97-107
Growing-finishing swine	
nutrient recommendations and feeding management,	80-96
Hammermills,	246, 247
Health,	10, 83, 159-172
High moisture corn,	208
Ideal protein,	15-18 , 31-33
Ingredients	
composition,	223-244
purchasing,	214-222
quality assurance,	11, 214-222
sampling and analysis,	199-206
use rate,	224
Interval feeding sows,	110
Iodine value,	189-191, 224-226
Iodine value product,	224-226
Laboratory	
analyses to perform,	200
interpreting results,	203, 204
Lactating swine	
nutrient recommendations and feeding management,	123-135
Lactose,	66, 71-75
Lactulose,	180
Laxatives,	111, 127, 180, 181
Lean gain,	80-82
Limit feeding,	100, 101, 110, 124
Low protein corn,	200
Low test weight grains,	207-209
Mannan-oligosaccharides,	180

Minerals	
dietary recommendations,	19, 44-48, 69, 70, 71, 87-91, 99, 102-105, 115-119, 130-133, 139-142
function,	37-39 , 53, 54
macro-mineral sources,	53-57, 232
tolerances,	165, 166
trace mineral sources,	40, 41 , 233, 234
Mixing times,	249
Mycotoxin binders,	210
Mycotoxins,	139, 169, 170, 200, 202, 209-211
Niche pork production,	262-277
Nonstarch polysaccharides	
for sows,	111, 112
sources,	25, 27
Nursery swine	
nutrient recommendations and feeding management,	65-79
Nutrient:calorie ratio,	19, 20
Nutrient excretion,	278-287
Nutrient recommendations	
breeding boar,	139-142
cull sow,	148
factors affecting,	8-12
gestating swine,	115-119
growing-finishing swine,	83-92
lactating swine,	129-133
methods to express,	19, 20
nursery swine,	68-71
replacement gilt and boar,	99-105
understanding of,	11, 12, 13-21
Omega-3 fatty acids,	142, 143, 181
Organic acids,	73, 176, 177
Particle size,	10, 11, 170, 171, 200, 245, 246
Paylean [®] ,	85, 149, 181, 194-198
Pelleting,	11, 73, 171, 247, 248
Phase feeding	
growing-finishing swine,	92, 96
nursery swine,	67
Phosphorus	
availability and digestibility coefficients,	231, 232
available and digestible defined,	18, 19 , 54, 56
dietary recommendations,	69, 87, 88, 89, 102, 105, 115-117, 130, 131, 139, 140
sources,	53-57 , 230-232
Phytase,	18, 19, 54, 56, 184-188
Pork quality,	94, 189-193, 288-300
Prebiotics,	179

Premix	
handling and mixing,	51, 252-254
trace mineral and vitamin specifications,	44, 49, 50
Probiotics,	177
Protein	
dietary,	15, 68, 124
sources,	30-36, 227, 228
Ractopamine hydrochloride (Paylean®),	85, 149, 181, 194-198
Replacement gilts and boars	
nutrient recommendations and feeding management,	97-107
Roasting,	248
Roller mills,	246, 247
Sample reduction,	202, 203
Sampling techniques,	201, 202
Sows	
cull,	145-149
gestating,	108-122
lactating,	123-135
Split-sex feeding,	79, 93, 96
Steam flaking,	248
Sucrose thermal oligosaccharide caramel (STOC),	180
Temperature,	9, 10, 83, 126
Trace minerals	
dietary recommendations,	19, 44-48 , 70, 71, 90, 91, 99, 100, 103, 104, 115, 118, 119, 130, 132, 133, 139, 141, 142
function,	37-39
sources,	40, 41 , 230, 231, 233, 234
tolerances,	165, 166
Vitamins	
dietary recommendations,	19, 44-48 , 70, 71, 90, 91, 99, 100, 103, 104, 115, 118, 119, 130, 132, 133, 139, 141, 142
function,	41-43
sources,	43 , 235-237
stability,	51, 249
tolerances,	165, 167
Vomitoxin,	209-211
Water,	58-64
Weather-stressed feedstuffs,	207-213
Yeasts,	177, 178
Yucca plant extract,	177
Zearalenone,	209-211
Zinc oxide	
for growth promotion,	73, 174, 175