## Nutrition and Feeding for Show Pigs

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## Outline

- How to read the feed tag
- Understanding what crude protein, crude fat, crude fiber really means
- Full and hand feeding
- Weighing and having a plan



Net Weight 50 lb Show Pig Grower Deluxe Guaranteed Analysis		
Crude Protein (min)	18.0%	
Lysine (min)	1.1%	
Crude Fat (min)	4.0%	
Crude Fiber, max%	4.0%	
Calcium (min)	0.6%	
Calcium (max)	1.0%	
Phosphorus (min)	0.6%	
Salt (min)	0.4%	
Salt (max)	0.8%	
Selenium (min)	0.3 ppm	
Zinc (min)	400 ppm	

#### Ingredients

Ground corn, dehulled soybean meal, menhaden fish meal, dried whey, wheat middlings, choice white grease, vitamin A supplement, D-activated animal sterol (source of vitamin D activity), L-lysine, riboflavin supplement, biotin, thiamin mononitrate, pyridoxine HCI, vitamin E supplement, menadione sodium bisulfite complex (source of vitamin K), folic acid, ethoxyquin (a preservative), ground limestone, monocalcium phosphate, salt, copper sulfate, manganous oxide, zinc sulfate, iron sulfate, cobalt carbonate, sodium selenite.

> **Feeding Directions** Feed free choice to growing pigs weighing 40 to 150 lbs.

> > Caution Do not feed to adult pigs

Manufactured By: Willie Wildcat Feeds Manhattan, Kansas 66502 1. Quantity

2. Product name and purpose
 3. Guaranteed nutrient analysis

#### 4. Ingredient composition

5. Directions for use

6. Precautionary statement

7. Name and address of the manufacturer

## Diet Crude Protein

- Crude protein (CP) in the show pig feed industry is used as the terminology to associate the diet amino acid level
- Pigs have NO true requirement for CP but for individual amino acids
  - Often used incorrectly when selecting a show feed
- Amino acid levels are what is important
  - Total lysine % is always listed on the tag



## Show Feed Crude Protein (CP)

- "General" guidelines for show feeds:
  - 20% CP from 25 to 50 lb (1.3 1.4% Lysine)
  - 18% CP from 50 to 150 lb (1.0 to 1.1% Lysine)
  - 16% CP from 150 to 280 lb (0.8 0.9% Lysine)
- However potential exceptions are endless, and options vary, but a few notable ones are.....



## Pig Looks Ideal - Diet CP

- You need regular weight gain with a pig that is ideal in muscle shape and leg structure.
  - Select a feed that meets the lysine needs of the pig
  - Most likely 18% CP until 150 lb and then a 16% CP until show weight



#### Lack muscle or too fat - Diet CP

- Your pig is narrower made, not enough muscle shape and/or early maturing where it is developing excess fat
  - Can feed your pig above the lysine requirement (higher CP feed) to help prevent excess fat development and enhance muscle shape until show weight



#### Heavy Muscled/Tight moving - Diet CP

- If a pig is very heavy muscled and/or tight structured, advice generally is feed a "lower protein diet"
  - <u>Translation</u> in most cases your feed will be at or below requirement for daily consumption of amino acids to slow growth and reduce lean muscle development
  - If you are behind on your ideal weight, this works against body weight gain to achieve your optimum final weight as the pig will gain less per day



#### Sow Feed – Say What?

- The term "Sow Feed" can be recommended for your show pig.
- Generally intended to be a low CP diet, such as a 14-15%.
- But Many sows feeds range from 14 to 20% CP.
  - Lactation 19-20% CP (1.0-1.2% Lysine)
  - Gestation 14-16% CP (0.65 0.75% Lysine)
  - All purpose 15-19% CP (0.80 0.90% Lysine)



### How to change diet CP

- Change the complete feed provided to your pig
- <u>To increase CP</u>
  - Purchase show protein supplements
    - High quality, also contain additional vitamins and minerals in most cases
  - Purchase soybean meal
    - 47-48% Crude protein



#### Soybean meal to increase CP

- Soybean meal is in EVERY swine diet already

   Highly digestible amino acids, matches pigs needs
- 2.5% added soybean meal increases diet CP by 1%.
  - 20 lb pail of complete feed add 0.5 lb of soybean meal and mix together
    - Your 16% is now a 17% protein feed
- 50 lb bag generally \$14-16.



#### Diet Crude Fat

- Normal corn-based diet contains about 3.5% fat
- A diet with a 5% fat on the feed tag would contain about 1.5% added fat
- Typical sources in complete feeds are choice white grease (pork fat), tallow (beef fat), soybean, corn or other vegetable oils
  - Do not use peanut or olive oil



## How to add fat to the diet

- Show feed fat additives are available to supplement your feed
  - Sold both dry or liquid by show feed companies
- Liquid fat from your grocery or big box store
  - Vegy based Corn, soy, canola or vegy blends





#### How to add fat to the diet

- <u>1.0% added fat will increase a diet fat by 1%</u>
  - 20 lb pail of feed add 0.2 lb of fat and mix together
  - Your 5% feed is now a 6% fat
- Liquid fat helps "texturize" the feed and improved palatability.



## Diet Fiber – Why and How

- <u>Why:</u>
  - Depth of body/rib (gut fill) or slow growth (low energy)
- <u>How:</u>
  - Beet Pulp (18% Crude Fiber; CF)
    - Mix with complete feed or wet it and put on top of feed
  - Whole or steam rolled whole oats (12% CF), Wheat bran/midds (8-11% CF), soy hulls (34% CF)
  - <u>How Not:</u>
    - Oat groats (4% CF); if holding pig weight using whole oats not ideal due to energy it provides



#### Concrete mixer for mixing feed

Mix quantities by bucket or bag – much easier and faster daily feeding
Ideally use a mixer without external motor and belt for safety





## Transitioning between feeds

- When changing between 2 feeds, doing blends over 4 to 5 days is desired
- Less of an issue if changing between the same brand and moderate nutritional profile differences
- More challenging if changing feed brands and a more drastic change in nutrient profiles



## Storage of Feed

- Feed must be fresh and stored properly
  - Fresh at purchase
    - Hard always to determine, must ask when feed was received
    - Difficult for some local feed stores or COOPS selling a low volume of show feed
    - Always verify each spring that the show feed is not actually carried over from the year prior
  - Purchase throughout the show season
  - Store in cool dry location



#### How much feed will my show pig eat?

- 50 100 lb ~ 3-5 lb/day
- 100 150 lb ~ 4-6 lb/day
- 150 275 lb ~ 6-8 lb/day
- Assuming a 3:1 feed conversion, a pig in the above weight range will consume 675 lbs of feed or 13 - 14 bags of complete feed.



# Self (full access) Feeding

- <u>Advantages</u> lowest labor, pigs should always have access to feed, can feed multiple pigs in same pen with ease
- <u>Disadvantages</u> may not know if a certain pig goes off feed, feed can become stale
- Only put enough feed in feeders for 5 7 days maximum to keep as fresh as possible.



\*Courtesy of Hog Slat

• Keep out of direct sun



#### Feeder adjustment

#### • Feeders Should be Adjusted Frequently

- Proper feeder adjustment is a little thing that makes a big growth difference
- Roughly 50% of the bottom of the trough should be showing
- Indicates balance between feed wastage and feed access



## Hand Feeding

- Advantages
  - know exactly if pigs are eating and how much
  - can control intake and adjust as needed
  - Needed in many cases to maximize pig appearance, particularly the last 100 lb of growth.
- Disadvantages
  - more labor intense
  - difficult to equally feed multiple pigs in one pen





#### Know the weight, know where to go

#### Girth measurement

Inches of clothing tape	Estimated pig weight, lb
25	49
26	59
27	69
28	67
29	89
30	99
31	110
32	120
33	130
34	140
35	150
36	160
37	171
38	181
39	191
40	201
41	211
42	221
43	232
44	242
45	252
46	262
47	272
48	282
Careela et al 2002 KG	<b>T</b> T



Groesbeck et al. 2003, KSU

## Push or Hold?

- I prefer to think in weeks rather then days
- April 1st to a county show July 17<sup>th</sup> = 280 lb
  - 15 weeks
  - Gain 10-14 lb per week (150 to 210 lb)
  - Weight April 1st then should be 70 to 130 lb
    - WOW a wide range of weight so you must know how your pig grows



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