

Foolproof Practical Feed Intake Monitoring

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Why is Feed Intake Monitoring Necessary?

- Feed cost
- Feed formulation
- Feed ration control
- Disease & Stress Monitoring

Figure 1



Feed Cost

- Feed cost is the single largest component in a feed hog operation.
 - 40% of total cost
 - 80% of operating cost if weanling cost omitted
 - 15% variance can double your profit or eliminate it

Feed Formulation

- Different genetics have different appetites and different daily consumptions
 - 50 lb. weanlings can consume between 3 lb. to 4.5 lb.
 - 200 lb. feeders can consume 5.5 lb. to 7.5 lb.
- If you know consumption, you can formulate your ration to meet needs

Feed Ration Control

- Phase feeding needs to know when to switch rations

Commercial Barn which makes their feed guess at when to switch rations.

Figure 2.



Disease and Stress Monitoring

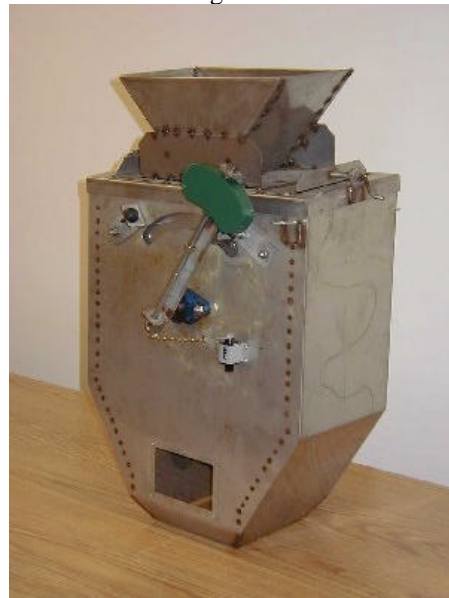
- Sick animals go off feed
- How do you know in commercial barns?
- With automatic feeding in small wet-dry feeders and large feed bin
- Example – Myco-positive pig will dramatically reduce feed consumption up to four days before visual symptoms show

The Feed Counter

PAMI Test

- 97% accurate in pellets and grains at up to 1.5 ton/hour
- Slightly less accurate using mash feed

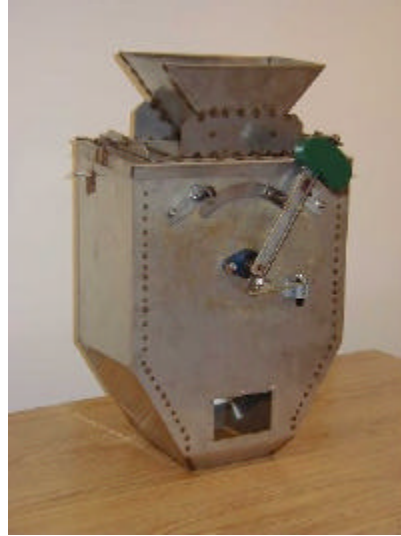
Figure 3



Feed Counter Features

- Totally stainless steel
- Washable
- All mechanical – 2 moving parts
- Low or no maintenance
- Reliable
- Flexible
- Cheap to buy
- Simple to operate

Figure 4



Feed Counter Users

- Personally tested for 5 years in commercial barn
- 7 demos out
- One measures mill output
- One measures nursery performance
- One measures room consumption
- Two compare purchased vs home-made rations
- Two are used to compare consumption of high vomitoxin barley

Feed Counter Worksheet

1. Take the total weight of six consecutive dumps, place in Box "A".
2. Divide Box "A" by 3 and get "B" average counter weight.
3. Check counter # and place in Box "C".
4. Multiply counter # "C" * "B" weight and place in box "D".
5. Calculate days on test and place in "E".
6. Divide "D" by "E" and get average consumed.
7. Count # of pigs in trial and place in "G".
8. Divide "F" by "G" to get average consumption and place in "H".
9. Compare "H" to Genotype Chart to see if the consumption is adequate.

Example Worksheet

| | | | |
|---|-------|----------|-----------|
| A. Total weight of 6 consecutive dumps | | 30 | A. |
| B. Average Counter Weight | (A/3) | 10 | B. |
| C. Number of count for period | | 3000 | C. |
| D. Total weight consumed | (B*C) | 30000 | D. |
| E. Number of Days | | 112 | E. |
| F. Average Consumed per day | (D/E) | 267.8571 | F. |
| G. Number of Pigs | | 45 | G. |
| H. Average consumption per head per day | (F/G) | 6.0 | H. |

Feed Conversion Worksheet

Example Worksheet continued

1. Take the average weight of the pig at the beginning of the trial and place in "I".
2. Take the average ending weight of the pig and place in "N".
3. Subtract "I" from "N" and place in "M" for total weight gain
4. Count the # of days on trial and place in "P". Do not count first or last day.
5. Divide "M" by "P" to get average daily gain and place in "O".
6. Divide "H", average consumption per day, by "O", average daily gain and get feed conversion.

| | | | |
|--------------------------|----------------|---------|-----------|
| Average beginning weight | | 50 | I. |
| Period ending weight | | 150 | N. |
| Total weight gain | | 100 | M. |
| Number of days | (N - I) | 50 | P. |
| Daily weight gain | (M/P) | 2 | O. |
| Feed Conversion | (H/O) | 2.97619 | |

Reasons for Developing Feed Counting

- Presently there is no practical method of measuring feed consumption in the commercial barn
- Farms that grind their own feed have no idea of intake or performance