

IMPROVED PURINA[®] ULTRACARE[®] FEED FORMULATIONS ENCOURAGES INTAKE & GAIN IN THE NURSERY

**Changes to palatability and gut-optimizing
technology tested in research and field trials**

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In late 2015, Purina Animal Nutrition updated the proven UltraCare[®] pre-starter and starter formulas. Updates included improved palatability to encourage intake for strong starts, as well as gut-optimizing technologies to support performance and ease of transition through each nursery phase.

Research conducted at the Purina Animal Nutrition Center compared the previous UltraCare[®] feeds to the new formulations. Data showed:

- Pigs in nursery days 0-14 experienced¹
 - 19% higher average daily gain (ADG)
 - 14% higher feed intake
 - 7.6% improved feed:gain ratio
- Pigs in nursery days 0-8 experienced²
 - Greater than 50% increase in average daily feed intake (ADFI)

These results attributed to the new formulations were confirmed by studies conducted in the field. (see Tables 1 and 2.)

Figure 1: Nursery pig performance during the first 12 days post-weaning when fed the previous UltraCare[®] 200 formula versus the new enhanced formula in a field study in Iowa (2015).

| Criteria | Previous UltraCare [®] 200 DEN/CTC (east side) ^a | NEW UltraCare [®] 200 DEN/CTC (west side) ^a | Difference in NEW vs. Previous Formulations |
|----------------------------|--|---|---|
| Total pigs | 215 | 217 | |
| Day 0 Weight, lbs. | 12.69 | 12.47 | |
| Day 12 Weight, lbs. | 16.65 | 16.70 | |
| Days 0-12 | | | |
| Feed per pig per day, lbs. | 0.48 | 0.48 | |
| Total gain, lbs. | 3.96 | 4.23 | +0.27 lbs. |
| ADG | 0.33 | 0.35 | +6% |
| Feed:Gain | 1.45 | 1.37 | -5.5% |

^a Pigs were placed in the same barn and then split so that pigs on the east side of the room were fed the previous UltraCare[®] 200 diet, and pigs on the west side of the room were fed the new UltraCare[®] 200 diet for the first 12 days post-weaning. Pigs were weighed by side.

Figure 1: Field study data managed and collected by Steve Sprouse, Purina Animal Nutrition

1. (WF007)
2. (Purina Animal Nutrition Center palatability study PS1035)



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Figure 2: Nursery pig performance during the first 14 days post-weaning when fed the previous UltraCare® 200 and 240 formulas versus the new enhanced formulas in a field study in Nebraska (2015).

| Criteria ^a | Previous UltraCare® 200 & 240 ^b | NEW UltraCare® 200 & 240 ^b | Difference in NEW vs. Previous Formulations |
|----------------------------|---|---|---|
| Total pigs | 200 | 200 | |
| Day 0 Weight, lbs. | 13.59 | 13.66 | |
| Day 7 Weight, lbs. | 16.41 | 16.67 | +0.26 lbs |
| Day 14 Weight, lbs. | 20.59 | 20.93 | +0.34 lbs |
| Day 0-7 | | | |
| Gain, lbs. | 2.83 | 3.02 | |
| ADG, lbs. | 0.40 | 0.44 | +7.5% |
| Feed:Gain | 1.167 | 1.045 | +11.69% |
| Day 7-14 | | | |
| Gain, lbs. | 4.18 | 4.26 | |
| ADG, lbs. | 0.60 | 0.61 | +1.60% |
| Day 0-14 | | | |
| Gain, lbs. | 7.01 | 7.27 | |
| ADG, lbs. | 0.50 | 0.52 | +4.0% |

^a 8 pens/treatment; 25 pigs/pen; 200 pigs/treatment; weights by pen on days 0, 7 and 14 post-weaning. Feed intake was only measured during the first 7 days post-weaning.

^b Feed budget: 1.5 lb./pig UltraCare® 200 and 2.0 lb./pig UltraCare® 240.

Figure 2: Field study data managed and collected by Steve Jones, Purina Animal Nutrition

These results realized in early nursery are essential because nursery performance has been shown to be the ultimate predictor of lifetime performance. Pigs that become eaters and gain weight successfully in the nursery often go on to grow more efficiently through finishing. According to Purina Animal Nutrition Center research, every pound difference at 32 days post-weaning correlates to a nearly 2.1-lb. heavier pig at finishing³.



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3. Summation of Purina Animal Nutrition trials: PS1041, PS1035, WF006, WF007, FT142N-15 and PMI Nursery-Grower Transition Pak.