

# RAISING TIKITI: WARTHOG (*PHACOCHOERUS AFRICANUS*) HANDREARING AT DALLAS ZOO

*Kerri A. Slifka, MS*

*Nutrition Department, Dallas Zoo, 650 S RL Thornton Fwy, Dallas, TX 75203, USA.*

## **Abstract**

A female warthog was born at the Dallas Zoo and was unsuccessfully nursing within the first 24 hours of life. Since the piglet's health was declining, she was moved into the animal hospital where veterinary staff could administer fluids, iron dextran, and complex B vitamins. A plan to begin feedings was created and formula composition was based on information in the literature on warthog, peccary, and domestic pig nutrient composition (Jenness & Sloan, 1970; Oftedahl, 1984; Osthoff *et al.*, 2017). On day one, dilute formula was offered and, over the course of four feedings, was increased to full strength formulation shown in Table 1. Additionally, reconstituted bovine colostrum replacer (LAND O LAKES Bovine IgG Colostrum Replacer) was administered via tube feed the next day. The nutrient composition of the formula is described in Table 2. Lactase enzyme was added to the formula to reduce any possible gastrointestinal distress. Human infant liquid vitamin plus iron supplement was added once the piglet was reliably taking the formula (Day 6). Feedings began at nine times per day between 0600-2200 at 20% body mass per day. On day four, the piglet was moved back to the animal area and housed in a trough in a stall, rapidly graduating to a full stall with heat lamps. The piglet was raised with visual, auditory, and olfactory access to conspecifics. The body mass was tracked in order to compare to other piglet female warthogs weight gain trends.

Overall, gains were steady (Figure 1); however, on days 5-6 and 13-15, gains were reduced. At those points, the percentage of body mass fed per day was increased to 25-28% per day (Table 3). Solid food introduction began at day 9, and bottles were discontinued at 90 days. When compared to other female warthogs of the same age in ZIMS, this animal's mass was slightly below the mean but within one standard deviation for the first month. After the first month and up to three months of age, she was at or above the mean for females of similar age. It is not visible from these data points which animals were hand-reared and which were mother raised.

## **Literature Cited**

- Jenness R and Sloan RE (1970) The composition of milks of various species: A review. *Dairy Sci Abstracts* 32:599-612.
- Oftedahl O (1984) Milk composition, milk yield and energy output at peak lactation. A comparative review. *Symp Zool Soc Lond* 51:33-85.
- Osthoff G, Hugo A, Mandele M, Deacon F, and Nel PJ (2017) Milk composition of free-ranging red hartebeest, giraffe, Southern reedbeek and warthog and a phylogenetic comparison of the milk of African Artiodactyla. *Comp Biochem Physiol A* 204:93-103.

**Table 1.** Dallas Zoo warthog hand-rearing formula.

<b>Item</b>	<b>Amount</b>
Evaporated Goat's milk <sup>1</sup>	47.17%
Water	47.17%
Esbilac Powder <sup>2</sup>	5.66%
Lactase tablet, fast-act	1 tab/kg
Poly-Vi-Sol with iron <sup>3</sup>	1 drop per 100g

<sup>1</sup>Myenberg<sup>TM</sup> evaporated goat milk liquid

<sup>2</sup>Esbilac® Puppy Milk Replacer Powder, PetAg

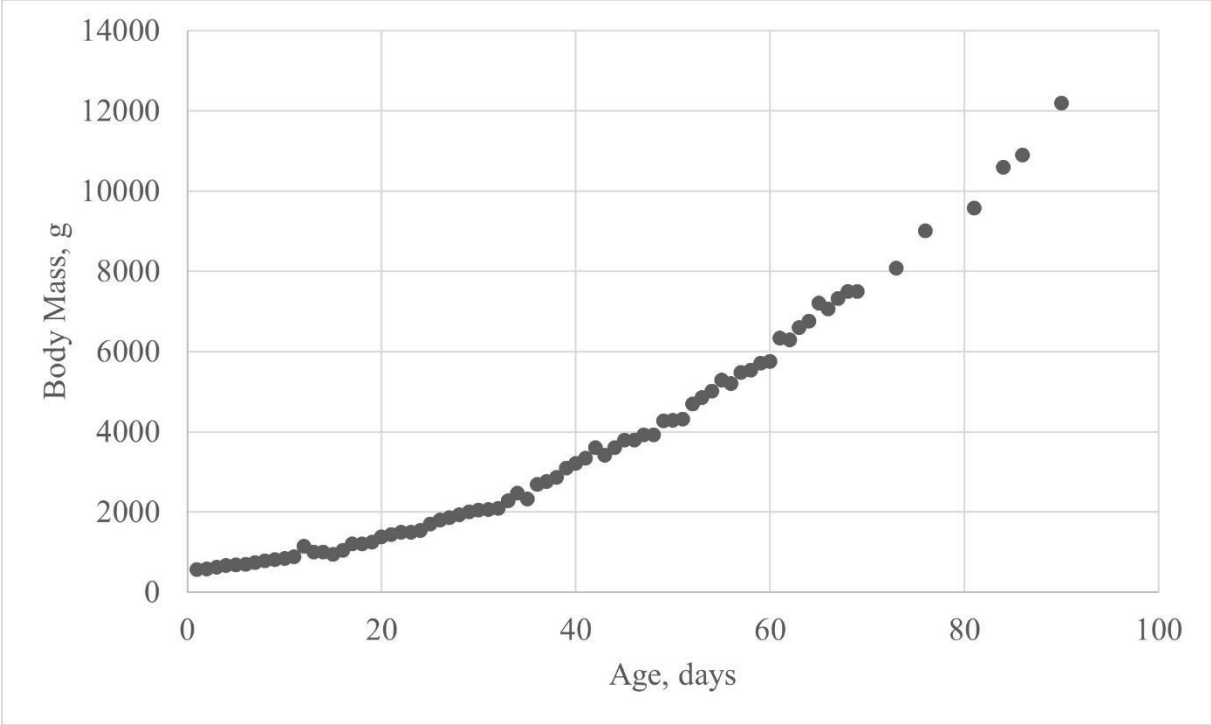
<sup>3</sup>Enfamil® Poly vi sol® Multivitamins with Iron - Liquid

**Table 2.** Nutrient composition of Dallas Zoo warthog formula.

<b>Nutrient</b>	<b>DZ formula AF Basis</b>	<b>DZ formula DM Basis</b>
Dry Matter, %	15.93	15.93
Protein, %	2.96	18.57
Fat, %	3.22	20.23
Total Sugars, %	1.91	11.97

**Table 3.** Percent body mass consumed per day.

<b>Day of life</b>	<b>Feeds/day</b>	<b>Percent body mass consumed/day</b>
Day 2-3	9	20-22%
Day 4-5	9	23-26%
Day 6-12	9	25-28%
Day 13-15	8	23-24%
Day 16-18	8	25-27%
Day 19-27	7	21-25%
Day 28-34	6	18-22%
Day 35-41	5	14-17%
Day 42-55	4	11-13%
Day 56-69	3	8-12%
Day 70-76	2	200g/feed
Day 77-84	2	100g/feed
Day 85-91	1	100g/feed



**Figure 1.** Body mass of female warthog (*Phacochoerus africanus*) from birth to 90 days.