

RESULTS

2022 Norwich Terrier Breeder Reproduction Health Survey

Pregnancy, Whelping, Neonates

NTCA members were sent an online anonymous survey in Summer 2022. **79 responses with sufficient data to analyze are included in the Results summarized here.**

Part 1. Breeding the Bitch

QUESTION: Generally, what is the earliest age you breed a bitch? [ANSWER choices: < 2 years ... > 7 years]

- < 2 years = 14 responses
- 2 years = 47
- 3 years = 13
- 4 years = 3

QUESTION: Generally, what is the oldest age? [ANSWER choices: < 2 years ... > 7 years]

- 2 years = 1 response
- 3 years = 3
- 4 years = 11
- 5 years = 29
- 6 years = 23
- 7 years = 11
- >7 years = 1

Answer choices were Yes or No. Some respondents skipped questions within this section.

| QUESTION: Timing of the breeding: What tools do you use? | |
|---|--------------------------|
| Calendar (counting days from discharge) | Yes = 34 of 46 responses |
| Behavior of the stud dog | Yes = 31 of 46 responses |
| Progesterone | Yes = 64 of 65 responses |
| Vaginal smears | Yes = 15 of 39 responses |
| LH Surge | Yes = 18 of 42 responses |
| Rely on standard days for all (i.e., Day 11) | Yes = 6 of 35 responses |

Progesterone testing was the predominant tool reported. Most breeders checked multiple methods.

QUESTION: If you use progesterone, what value do you use to estimate ovulation?

Almost all breeders who use progesterone testing said they use 5 ng/ml as their guideline; several use 6 ng/ml. Several said they also look for 24-hour rise, and several rely on the veterinarian to determine the breeding dates.

QUESTION: If you use standard days, what days? Responses were fairly consistent: 10-12, 10-14, 9-12.

QUESTION: Generally, number of times do you breed in a cycle? Most answered 2 or 2-3 times. Two respondents said one time.

QUESTION: Any other comments about timing of the breeding?

The most frequent comment pertained to the availability of the stud dog. Other comments included when the litter would be due, the breeder's schedule, and "history."

Part 2. Pregnancy and Whelping

| QUESTION: During pregnancy, do you generally... | |
|--|-------------------------|
| Hold off giving vaccines? | Yes= 59 of 66 responses |
| Hold off giving flea and tick meds? | Yes=59 of 66 responses |
| Monitor progesterone concentrations throughout pregnancy? | Yes=15 of 66 responses |
| If you monitor progesterone, have you supplemented synthetic progesterone? | Yes= 5 of 15 responses |
| Ultrasound? | Yes=57 of 66 responses |
| Make a diet change? | Yes=38 of 66 responses |

QUESTION: If you change diet, what do you do?

There were many comments about diet change. Adding or switching to a puppy food (last 2-4 weeks), increasing protein and calories, and adding cottage cheese were common responses. Also adding calcium, prenatal vitamins, and folic acid.

QUESTION: Do you generally free-whelp?

20 of the 52 breeders (61.5%) answered YES to this question. NOTE: The response to this question is not consistent with a later question where 45 of 54 breeders (83%) said they generally plan c-sections. In another section, breeders provided data on 203 individual recent litters: 69 (34%) were free-whelped; 134 (66%) were c-sections.

QUESTION: If you plan the c-section, please describe the method (i.e., wait until the bitch is in labor, "reverse" progesterone blood draws, temperature drop and other signs, scheduled based on ovulation or breeding date). [text box]

Progesterone testing near due date was the most common method mentioned, and working with the vet. Also, a fairly large % commented that they wait until bitch is in labor (some vets require this) or opt to c-section only if there is trouble.

| | |
|--|-------------------|
| QUESTION: Generally, do you have any complications with c-sections? | Yes = 0 responses |
| Death of puppies | Yes = 3 |
| Death of the dam | Yes = 1 |
| Infection | Yes=2 |
| Litter that was slow to revive? | Yes=2 |
| Dam slow to fully recover and take care of puppies? | Yes=7 |

Of the 170 individual c-section litters reported (last 5 litters section), 4 had complications (2.4%).

OTHER COMMENTS: puppy stuck in birth canal = 3; slow to lactate = 5; 1 said dam died due to vet error; 1 had severe reaction to anesthesia (breathing problem); 3 reported incision sutures opened; 2 reported infection (1 said due to a staple); UTI next day; several reported puppies dead on arrival.

Generally, # of live puppies in a litter? The average was 3 (51 responses).

Generally, # of dead puppies in a litter? One breeder responded “3”; other responses were 0 and 1. Based on the total responses to the question about experience with the last 5 litters, breeders reported that **32%** of puppies died.

CAUSE OF PUPPY DEATHS?

Cause of death were mentioned by some respondents in the comments and can be summarized by 3 categories: complications of free whelping; lung development disease; congenital birth defects. By far the most frequent complication of free whelping mentioned was stuck puppies resulting in puppy deaths. Congenital birth defects listed included heart anomalies, hole in liver, cleft palate, deformed and mummified fetus (unknown cause). Confirmed and/or suspected puppy lung disease reported by 7 breeders. Other responses included low progesterone, absorbed, canine, herpes virus and “unknown” cause.

Section 3 Neonatal: Early Days after whelping (0-3 weeks)

| | |
|---|---|
| Have you ever had ... | |
| Problems with milk let down, inadequate milk production? | Yes=30 of 70 responses |
| Supplement calcium post-whelp? | Yes=38 of 70 responses |
| Eclampsia? | Yes=6 of 6 responses |
| Serum injections? | Yes, oral =7 Yes, sub-Q =8 Yes, intra-abdominal = 0 |
| Puppies that failed to thrive (i.e., gain weight, crying, not nursing) | Yes=43 of 69 responses |
| Supplementation – What feeding tools do you use? Breeders checked of the answer choices. | Tube feeding: top response Sponge feeding Eye dropper Syringe w/ miracle nipple Other |

QUESTION: Any other comments you would like to share? [text box]

Breeders listed strategies used including close monitoring of small puppies, incubator, supplementing milk (bottle, syringe), hydration (Sub Q fluids), tube feeding (electrolytes, milk), oxygen, gas drops, homeopathic fading puppy remedy, fresh frozen plasma, vitamins, antibiotics, gas drops, probiotics. Nutracal, liver water, and to remove fluids at birth with bulb syringe or DeeLee trap.

This survey was conducted by the Health Committee, Norwich Terrier Club of America.

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