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Breed Specific Reproduction Projects

- Important to generate breed-specific data:
 - Help breeders evaluate their own breeding programs and identify problem areas
 - Help breeders design healthy breeding programs
 - Monitor breed health
 - Provide data to researchers to assist their work
 - Provide a template to collect data in collaboration with other researchers
- Little breed-specific data is available in the scientific/vet literature
- Most information on feline reproduction comes from research colonies
- Most pedigreed cat research published is prior to 1980; only 3 studies have been published in the last 20+ years

- Important factors to investigate:
 - Litter size
 - Stillbirth rate
 - Birth weights
 - Congenital defects: type and rate
 - Kitten survival at 4 weeks and 6 months
 - Causes of kitten illness/death
 - Effect of age of queen/tom
 - Effect of queen parity (number of litters)

- Summary of some data available in the literature:
 - Average Litter Size:
 - 3.3 to 4.2 (research colonies)
 - 3.3 to 4.6 (pedigreed catteries)
 - Stillbirths (% of kittens born):
 - 3.2% to 4.7% (research colonies)
 - 5.9% to 22.1 % (pedigreed catteries)
 - Dystocia (% of deliveries):
 - Average 5.8%, up to 22% in some breeds
 - Congenital Defects (% of kittens):
 - 1% to 10% (research colonies)
 - 1% to 31% (pedigreed catteries)
 - Mortality Rates (% of kittens, pre-weaning):
 - 10% to 17% (research colonies)

- 8% to 40% (pedigreed catteries)
- **Devon Rex Kitten Information Project**
 - Litters born from June 1, 2001 to May 31, 2002
 - Entirely web-based
 - World-wide participation
 - 14 breeders from UK/Europe
 - 16 breeders from US/Canada
 - 201 litters, 751 kittens enrolled in project
 - Average litter 3.7 kittens
 - Stillbirth rate 6%
 - Birth weight 86 g (females 83 g, males 88 g)
 - Dystocia: 8% of deliveries
 - Congenital defects reported:
 - Umbilical hernia: 2.3% of kittens
 - Flat chest (FCK), Cleft palate
- **Ragdoll Kitten Information Project**
 - Litters born from Oct. 1, 2002 to Sept. 30, 2003
 - Entirely web-based
 - World-wide participation:
 - 41 breeders: 75% US/Canada
 - As of June 2003: 121 litters, 548 kittens enrolled in project
 - Average litter 4.5 kittens
 - Stillbirth rate 5%
 - Birth weight 98 grams (females 96 g, males 100g)
 - Dystocia 3.5% of litters
 - Congenital defects reported:
 - Skin tags, split eyelid, cleft palate
 - No FCK, umbilical hernias reported yet
- **Sphynx Kitten Information Project**
 - Litters born from Apr. 1, 2002 to Mar. 31, 2003
 - Entirely web-based
 - 18 breeders: 17 from Canada/US, 1 from S. Africa
 - 50 litters, 201 kittens enrolled in project
 - Average litter 4.0 kittens
 - Stillbirth rate 4.5%
 - Average birth weight 97 grams (females 98 g, males 97 g)
 - Dystocia <1% of litters
 - Congenital defects reported:
 - Cleft palate, umbilical hernias
 - No FCK reported

- Other breeds currently underway:
 - Burmese
 - Bengal
- Others in planning stages:
 - NFC
 - Birman
- Breed Projects Procedure:
 - Enroll your cattery and receive a breeder number to submit data
 - For each litter:
 - Enroll the litter soon after birth
 - Report at 4 weeks and 6 months of age
- **Flat Chest Kitten Syndrome**
 - Reported in most breeds; higher rate in Burmese, Bengals??
 - Occurs in 3-4% of Burmese kittens born in the United Kingdom
 - Varies from mild, transient to severe, life-threatening
 - May see poor growth, trouble breathing
 - Sharp horizontal ridge on ribs; +/- spinal curvature
 - Condition must not be confused with pectus excavatum (PE):
 - In PE, the sternum is depressed upward into the chest cavity
 - PE is not usually associated with spinal curvature
 - The U.K. study of affected Burmese suggested the primary problem is with the muscles of the chest and diaphragm, rather than with bone or connective tissue
 - Mildly affected kittens may quickly outgrow the defect and appear normal as adults
 - Severely affected kittens often die to compression of the heart and lungs
 - Best not to breed affected cats until more is known about inheritance and other potential contributing factors

