


The Effect of Sperm Mobility on the Duration of Flock Fertility

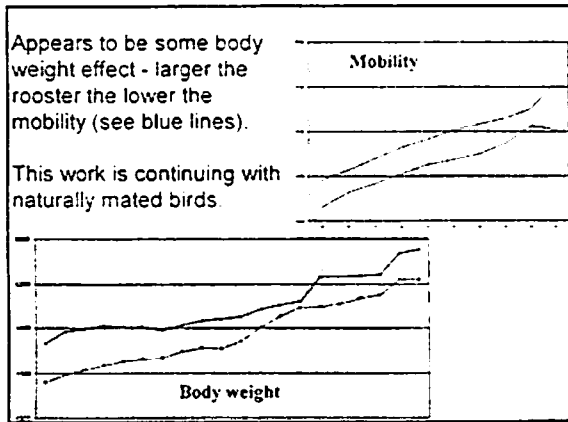
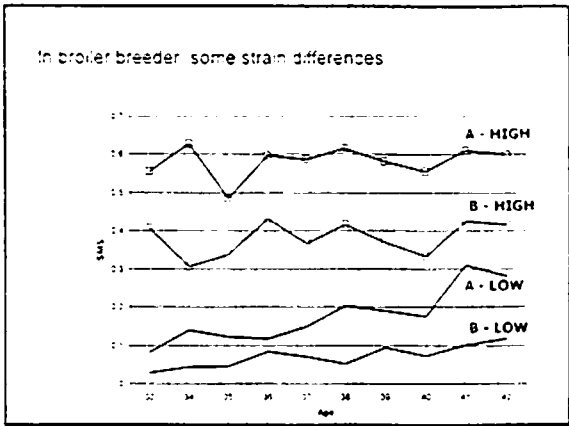
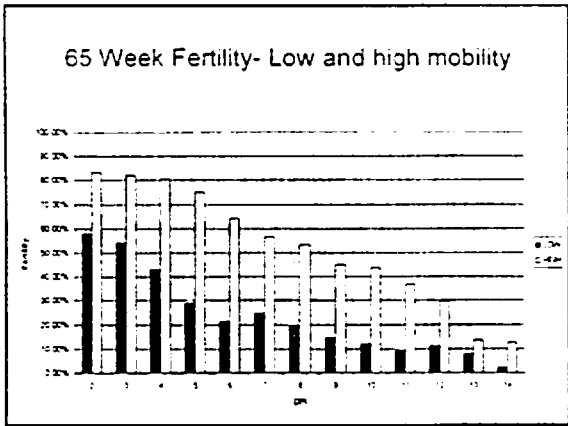
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Sperm Mobility

- David Froman identified a method that tested the forward movement of a sperm cell
- Characterized roosters as producing high or low mobility sperm
- When high mobility sperm were used to artificial inseminate hens, the hens were more fertile



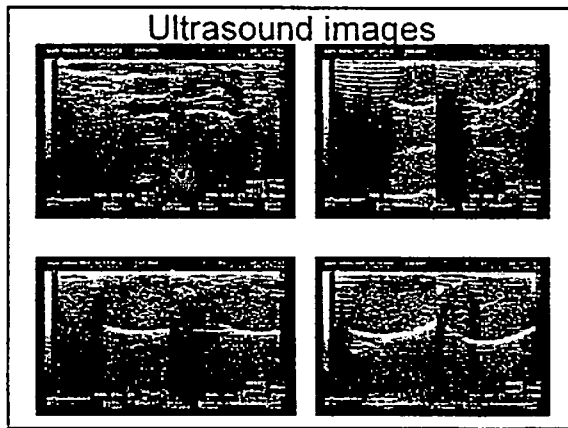
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Broiler breeder roosters' ability to naturally mate after utilizing ultrasound as a non-destructive means to measure testicular size

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Mating activity

Mating observations	Mean SAI Pre-ultrasound treatment	Mean SAI Post-ultrasound treatment
1 day post ultrasound	4.64 ^a	5.5 ^a
2 day post ultrasound	4.64 ^a	5.5 ^a
3 day post ultrasound	4.64 ^a	5.44 ^a
7 day post ultrasound	4.64 ^a	4.44 ^a

P>0.05

Mean % Fertility

	Control % Fertile	Treatment % Fertile
Pre-ultrasound	98.20 ^a	98.05 ^a
3d Post-ultrasound	97.95 ^a	97.98 ^a
7d Post-ultrasound	97.06 ^a	97.12 ^a
14d Post-ultrasound	97.96 ^a	98.33 ^a
Overall	97.79 ^a	97.87 ^a

P>0.05

Ultrasound imaging allows:

- Testicular evaluation of roosters
- No physical damage
- No change in mating frequency or fertility rate after ultrasound imaging