## Claims

~~1. The use of canthaxanthin for improving hatchability and fertility in poultry.~~

~~2. The use according to claim 1, wherein canthaxanthin is combined with at least one vitamin D metabolite.~~

~~3. The use according to claim 2, wherein the vitamin D metabolite is 25-hydroxy vitamin D3.~~

~~4.~~1. The use of canthaxanthin in the manufacture of a food or veterinary composition for lowering embryo mortality in poultry.

~~5.~~2. The use according to claim 4~~1~~, wherein canthaxanthin is combined with at least one vitamin D metabolite.

~~6.~~3. The use according to claim 2, wherein the vitamin D metabolite is 25-hydroxy vitamin D3.

4. The use according to claim 2 comprising about 2 to 100 ppm canthaxanthin, preferably from about 2 ppm to 10 ppm.

5. The use according to claim 3 comprising about 10 µg/kg to about 100 µg/kg of 25-hydroxy vitamin D3.

~~7. A poultry food comprising from about 10 mg/kg to about 100 mg/kg of 25-hydroxy vitamin D3 and from about 2 to 100 ppm canthaxanthin, preferably from about 2 ppm to 10 ppm.~~

~~8.~~6. A premix composition comprising canthaxanthin and optionally 25-hydroxy vitamin D3, for use in breeder feed to lower embryo mortality.

~~9. A premix composition comprising canthaxanthin and optionally 25-hydroxy vitamin D3, for improving hatchability and fertility in poultry.~~