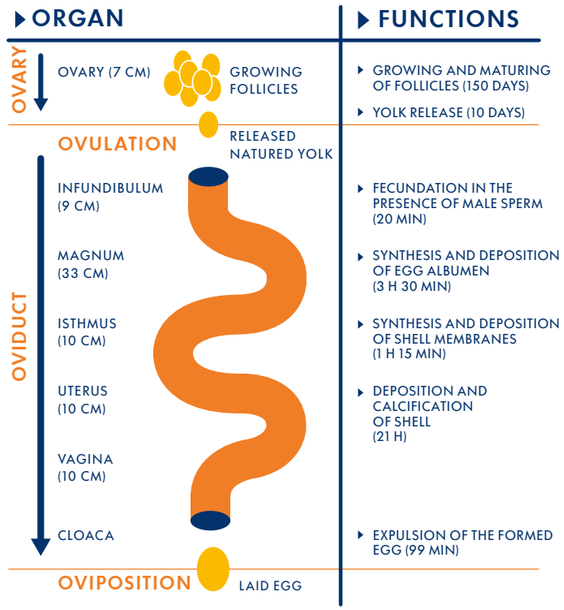
Split-feeding nutritional add-ons for laying hens

Egg production is a physiologically complex process for the hen, involving the mobilisation of different amounts and types of nutrients at different times of the day. Precise feeding is required in order to match the circadian biological rhythm of the animal. Trouw Nutrition conducted extensive research to determine the exact nature of the hen's changing nutritional requirements across the egg formation cycle.

Different formation phases of the egg*

Egg formation involves the mobilisation of varying amounts and types of nutrients at different times of the day.



* Adapted from Sauveur, 1988.

The tables below show how a split-feeding programme compares statistically with a single-feed system.

The split-feeding concept

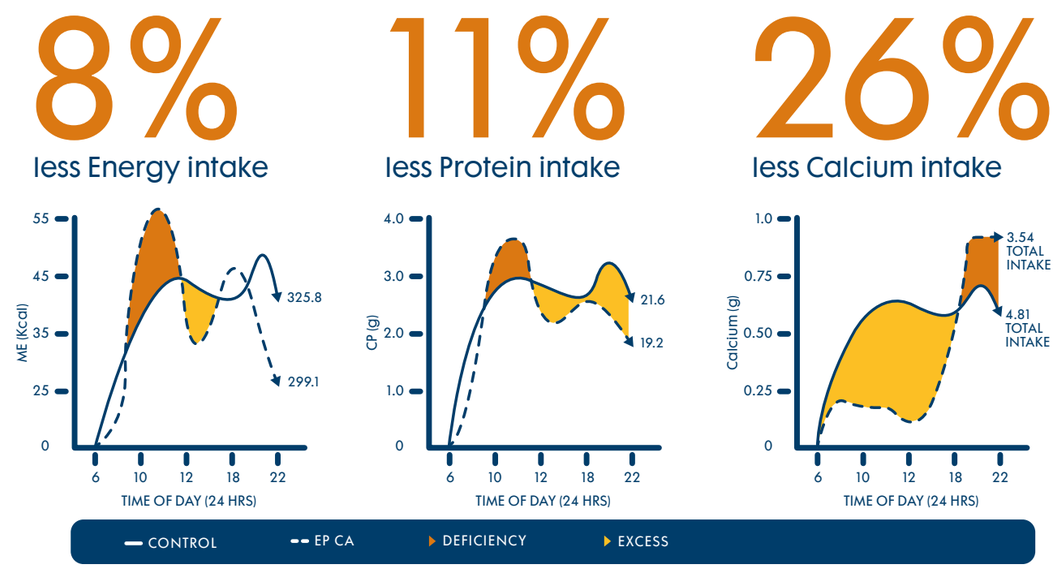
By opting for a split-feeding regime, it is possible to achieve improved eggshell quality and laying persistency on a **reduced** nutrients intake, when compared with a single-feed approach.

- The **morning feed** delivers the nutrition for energy, protein and phosphorous for egg lay production.
- The **afternoon feed** meets the requirements for eggshell formation.

This not only offers a reduction in feed and production costs, but also results in more effective delivery of feed ingredients, with less excretion of nutrients.

Nutritional requirements of laying hens* (choice feeding)

With a single-feed it is not possible to adjust nutrient levels over the course of the day to match the hen's requirements for egg formation. However, this is possible with a split-feeding programme.

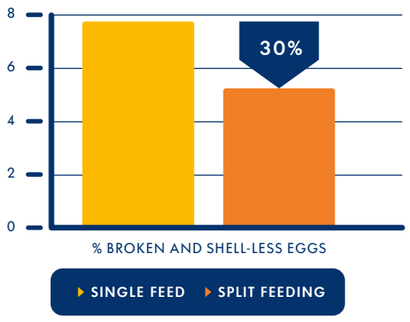


* Adapted from Chah, 1972.

Increased profitability through better eggshell quality*

Split-feeding increases the number of eggs that can be sold, by improving shell quality and therefore minimising the number of broken and shell-less eggs.

FEED	EGG PRODUCTION	SELLABLE EGG PRODUCTION
Single feed (91-94 weeks of age)	73.2%	66.7%
Split-feeding (95-98 weeks of age)	72.2%	69.3%



Using NutriOpt to benefit from our insight
With your NutriOpt split-feeding add-on, it is possible to calculate the precise supply of nutrients required for the two daily feeds, in order to ensure optimum egg formation for your flock.

Key benefits of the split-feeding nutritional add-on

- Access to optimum cost formulation additive matrix, designed using split-feeding expertise
- Ultimately allows you to reduce feed and production costs, while increasing eggshell quality and laying persistency
- Improved sustainability – less excretion of nutrients

* Trouw Nutrition research 2010.