

Power Layer Program

In the layer industry we identify three main production goals:

- High number of eggs, independent of egg weight
- High egg mass (= egg weight x laying percentage)
- Optimal weight class, or maximum egg weight

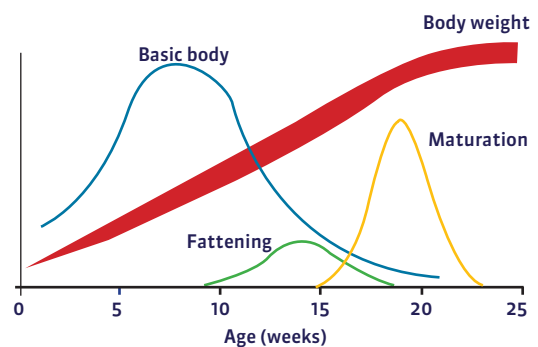
Based on research and experience, Provimi can create the optimal program for all three production goals, taking into account factors such as customer requirements, feed intake, used raw materials, breed and system (cage, barn, free range, organic).

Provimi Rearing Period (0 – 20 weeks)

The rearing period is a critical period and it will have a major influence on the future production of the laying hen. A poor rearing period will lead to poor egg production. During the rearing period there are three different stages of body development as indicated in Figure 1. The first stage, up to 10 weeks old, is the development of the basic body. The second stage is from weeks 11 to 17 and care must be taken to prevent the bird becoming too fat. The third stage is the maturation phase, when development of the reproductive organs takes place.

To obtain optimal development during these different stages, Provimi recommends that the

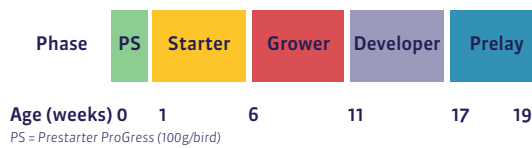
Figure 1. Body development in the rearing period of the layer



young birds progress through five diets, as shown in Figure 2. Each diet is adapted to meet the precise requirement of the rearing hen in that specific.



Figure 2. Layer feeding phases – rearing period



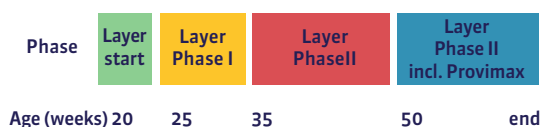
Each diet is adapted to meet the precise requirement of the rearing hen in a specific period. During the first phase the prestarter **ProGress** is fed at a rate of 100g/bird. In the following phases (starter, grower, developer and prelay) full concentrates, concentrates or premixes are used, depending on your system.

The first 10 weeks are very of vital importance for the development of the basic body. After 10 weeks the basic body is still developing, but there is a risk of non-functional fat deposition, so the diet must be modified to match the bird's requirements. After 17 weeks the reproductive tract is developing and the bird is preparing for laying, so nutrient levels are increased to properly support the development of the laying apparatus. The prestarter ProGress is supported by field trials carried out by Provimi. Results show that by feeding ProGress at a rate of 100g/bird the birds develop well and there is better uniformity of the flock during rearing as well as during production. This in turn improves the transition to other diets in the program and results in improved egg production.

Provimi Laying Period (20 weeks – end)

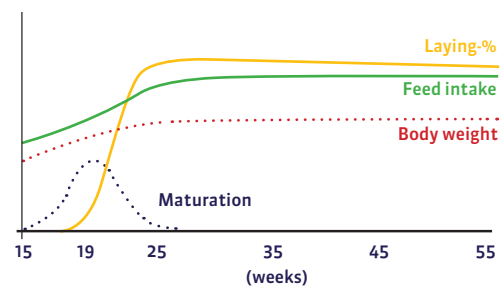
Provimi splits the laying period into four phases as shown in Figure 3; layer start, phase I, phase II and phase III. The start phase diet is high in amino acids, phosphorus, linoleic acid and energy. The main difference in phase I, II and III is an increasing calcium level in the feed and the addition of **Provimax** from 50 weeks. In these phases full concentrates, concentrates or premixes are used depending on your system. Provimax can be added either in the concentrate or as a separate additive.

Figure 3. Layer feeding phases – laying period



It is important to offer extra support to the laying hen during the first weeks of egg production. As shown in Figure 4, production starts up very rapidly, although the feed intake is still limited. Furthermore, the bird is not fully mature and her body weight is still increasing (functional bodyweight gain). So from 20 to 25 weeks the daily nutrient requirement of the laying hen is high, and feed intake capacity is limited, so Provimi advises a special layer start feed with higher amino acid and energy levels, increased phosphorus and more linoleic acid.

Figure 4. Pattern of laying percentage, maturation, body weight and feed intake of laying hens (15 weeks onwards)



After 25 weeks Provimi recommends three diets with increasing calcium levels. Amino acid requirements per hen per day are determined by the market requirements, whether a maximum number of eggs are required, maximum egg mass or maximum egg weight. From 50 weeks onwards Provimax is added to improve eggshell quality and stimulate laying persistency.

Conclusion

Provimi will work with you to develop an excellent tailor made nutritional program that can achieve optimal production results. Provimi takes into account all conditions and management systems such as the breed, housing, available raw materials and the production goals of the particular unit. Therefore, every nutritional program is custom made. Using our premixes, concentrates and other Provimi products in the Power Layer Program, we will help to maximise your flock's performance and profitability.

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