

6 WAYS TO FEED FREE RANGE HENS TO BE MORE RESILIENT



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What free range hens eat can have a big impact on their well-being and resilience.

The definition of resilience that I feel most aptly applies to free range egg farming is: *"the capacity to withstand or recover quickly from difficult conditions"* (Oxford Dictionary, 2023).

It is almost certain that even the best managed free range flocks will hit several bumps in the road throughout their lives.

These bumps include: transfer into the layer house, vaccinations, infestations and infections, the physiological demands of peak lay, changes to diet, extremes of weather and competition with/aggression by sisters.



When formulating feed for free range flocks it is vital to apply nutritional strategies to support the hen to avoid costly production "crashes" and mortality.

#1 Consider the needs of the bottom third of the flock:

In a caged facility, it is reasonable to balance a layer diet to suit the average feed intake and body weight of the flock.

But in free range flocks, it is vital to adjust the diet to cater for the needs of the bottom third of the flock to build resilience. For example, if the flock's average feed intake is 105g/hen/day, balance the diet to 100g/hen/day and delay diet change to the next phase. Consider adding gut health additives that improve the rate of nutrient absorption.

#2 Change diet gradually:

Transition the ingredient profile and nutritional value of feed gradually from one phase to the next or if it is necessary to reformulate around changes to cost and availability of ingredients.

When presented with unfamiliar feed, hens tend to throw it around searching for what they had yesterday.

Also, large changes to ingredient profile of the feed can disrupt gut microflora greatly affecting the efficiency of digestion and absorption of nutrients.

#3 Protection from the outside:

Never underestimate the importance of feathering.

The amino acid requirements of the hen must be met not just for egg mass output but also to support good feathering required to protect the skin and for insulation.

Rapidly dividing tissue that lines the skin, gut, lungs and oviduct are the first barrier of protection against infection and are vital to the healthy functioning of these organs.

The need for amino acids, Vitamin A and Zinc must be met to support growth of these tissues. A healthy Vitamin K status is necessary for rapid blood clotting to reduce the incidence of cannibalism.

#4 Mitigate Heat Stress

Betaine is an osmolyte which improves absorption of water to improve hydration. A phyto-genic anti-inflammatory can greatly reduce the effect of heat stress on the gut lining to reduce incidence of "leaky gut".

Addition of Vitamin C either via water (soluble ascorbic acid) or feed (Ethyl Cellulose coated Vit C) can modulate the stress response during extreme heat to avoid severe stock losses (dose water 3 days prior to heatwave or add to feed continuously through hot weeks).

#5 Improve Vaccine Responses

Several yeast products are known to prime the immune system when added to feed on an ongoing basis - data suggests that this improves vaccine responses.

Some vaccines are known to divert nutrients away from productivity in the short term to support production of antibodies.

To minimize impact, avoid changing diet at the same time as vaccination. A healthy status of anti-oxidants (Vitamin E and Selenium) is also required.

#6 Feed Fibre to Reduce Feather Pecking and Cannibalism

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