Novel range cover options within an organic rotational system.

Problem

The main challenge faced in commercial laying hen flocks is managing each flock without an outbreak of injurious feather pecking. In the wild, jungle fowl spend 61% of their time foraging. Foraging behaviours include pecking and scratching at potential food sources, as well as looking for and sampling possible food sources. Commercial farms provide laying hens with a complete feed, eliminating the need to forage in order to obtain nutrients, but hens are still highly motivated to perform this behaviour. Injurious feather pecking is therefore a misguided foraging behaviour. A major welfare issue where the pecker is in a frustrated state and causes pain and distress to the recipient. Injurious feather pecking is also associated with disease and loss of production for the laying hen enterprise.

Application box

Theme: Range cover
Production system: Organic free range
Stock: Laying hens
Equipment: novel range cover

Solution

In a rapid response to consumer demand, many farmers established commercial free-range laying hen units using existing open field ranges with little or no enhancement.

Encouraging as many hens out to range is one of the most important protective factors to reduce injurious feather pecking. As a prey species descended from jungle fowl hens require the shelter and protection of tree canopy to encourage confident and extensive use of the range. In recent years, agricultural development programmes have invested considerable funding and resource to promote the adoption of tree planting across free ranges. Although an established tree canopy provides the optimal environment to facilitate and maximise foraging behaviour, many farmers are without liberty to plant trees due to their permanency which can conflict with tenancy agreements, mixed farm rotation or multiple land uses. This comes at odds with standards which require 5% natural range cover on free range and organic laying hen flocks, and is a barrier to further action. Establishing a novel cover crop such as Jerusalem artichokes can provide natural range cover and foraging opportunities as a simple, practical solution to this problem.

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Benefits

Cover crops like Jerusalem artichokes are easy to establish, provide quick growth, branch and leaf cover throughout summer and autumn, are hardy in winter, last 3-5 years and fit into a mixed farm or organic rotation. The biodiversity of cover crops like Jerusalem artichokes and insects which are attracted brings extra sources of protein, giving the hens variety of foraging opportunities, keeping them occupied looking for and sampling possible food sources. Like trees, cover crops may also benefit soil fertility and water infiltration.

Practical recommendation

Planted two feet apart in both directions in late April/early May, artichokes grow quickly and should provide six feet of cover by the Autumn. The cultivated area will need to be corned off or covered to allow the shots to establish to at least a couple of feet before laying hens can range between the plants. The crop should last 3-5 years, providing avenues of natural range cover for the hens to forage within. The tubers can also be thinned out to expand the area covered with Jerusalem artichokes.

Further information

If you have any specific question about this technical note, please contact the authors by email: jessica.e.stokes@bristol.ac.uk.

For further information on range cover and other topics have a look at the HenHub: www.HenHub.eu

About this Technical Note and the Hennovation project

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