Climate Positive Agriculture

2021/22 report on progress

After pioneering several industry firsts during 2020/21, including calculating the carbon footprints of our compounds and blends, working with suppliers toward responsible sourcing of soy and palm and an extensive expansion of our Climate Positive Impact range of feeds, we continue to help Farmer Shareholders understand and meet the growing environmental challenges. Our on-farm programme to help reduce carbon footprints continues to expand and includes:

Improving feed efficiency

Optimising milk quantity and quality in dairy cows, and growth in beef cattle, by careful ration formulation and choice of feed, helps improve feed efficiency which then reduces carbon footprint per litre of milk or kg of growth. We are focusing on feed efficiency as a major influencer of dairy, beef and sheep carbon footprints and will be incorporating feed efficiency measurements into our farm rationing service. Reducing feed waste also features strongly when calculating feed efficiency. Helping our shareholders maximise feed efficiency is a priority area and will drive significant on-farm benefits.

New ration environment report

We have added a new ration environment report to our farm nutrition rationing programme that details milk yield and quality, the carbon footprint of the ration, faecal nitrogen output, milk protein efficiency and enteric methane production.

Together, these parameters can account for up to 65% of the farm's total carbon footprint. Understanding the numbers and how to reduce them can have a significant impact on the overall farm result.

Nutrient management plan

Slurries and solid manures are extremely valuable fertilisers. We have developed our Nutrient Management Plan to help Farmer Shareholders utilise these resources to the full. We can help plan the overall fertiliser policy, optimising the purchase of any artificial fertilisers needed, avoiding unnecessary cost and improving the farm's carbon footprint.

This helps farmers maximise their quantities and qualities of home-grown forages, reducing the need for purchased feed which reduces carbon footprints further.

Climate positive impact range

For Farmer Shareholders and customers wishing to avoid using soy and palm products, we have further expanded our Climate Positive feeds range to meet dairy farms' nutritional needs. These high-quality compounds are produced without soy or palm products and formulated with specific low carbon footprints. We continue to incorporate more home-produced feed products to reduce the reliance on imported feeds.

Beans buy-back incentive

As part of our circular agricultural approach, we have launched our bean buy-back incentive. We are working closely with shareholders and farmers to increase the use of British protein in our feeds by guaranteeing a bean market for growers who contract with us. This gives financial security to our shareholder suppliers and helps us lower our need for imported proteins, reducing the carbon footprint of our feeds.

Animal management, health and welfare

Through our Molecare Farm Vets business we continue to promote high animal health and welfare and advise on efficient rearing policies. Keeping animals in full productive health, combined with helping to ensure the right number of animals are present on the farm (for example, helping achieve the right age at first calving, improving pregnancy rates and reducing mortality) significantly improves farm carbon footprints.

Continuing to invest in research and development

We have a proud history of investing in practical research and development for dairy, beef and sheep. We have joined forces with Scotland's Rural University College (SRUC) Dairy Research and Innovation Centre to support a PhD student researching protein distribution and utilisation across the transition period of dairy cattle. Improving protein efficiency saves cost and improves environmental impacts. In addition, we are working closely with the University of Nottingham to investigate the effect of protein sources on heifer rearing and subsequent lactational performance. Increasing the lactation efficiency of heifers will improve their environmental footprint.

Evaluating and investing in new products

We continue to identify and develop cost effective products that could have positive environmental benefits. Recent examples include NovaPro, a British rumen protected rapeseed product that can replace soybean meal. This can improve the carbon footprint of compounds and blends. MVF Fibre D+ is a new product launching in 2023 which increases the digestibility of fibre when added to the feed mix. Increasing fibre digestibility could improve energy supply to animals, increasing production and reducing carbon footprints.

Committed to responsible sourcing of feed materials

We are working with our feed material suppliers to make sure we are doing everything we can to source 100% of our feeds from sustainable sources by 2025. We continue to declare our carbon footprint values on feed labels for our compounds and blends to help identify higher and lower carbon footprint products.

Our environmental performance

During 2020/21 we published our environmental commitments and we continue to work toward becoming carbon net zero by 2040. We have workstreams across various areas of our business, with good progress being made, including:

Increasing solar power across our freehold sites

Sites are being evaluated for their suitability to have solar panels fitted, with our Heals feed blending facility seeing solar panels installed in 2021/22 which are generating a significant proportion of the site's total electricity requirement.

Changing to LED lighting in Mole Valley Farmers retail stores

This change has significantly reduced our carbon footprint, so far saving 184.6t of CO_2e (carbon dioxide equivalent). This reduction in emissions will carry on year after year.

Electric vehicles

Although hampered by availability of electric vehicles, we have replaced a significant number of conventional fuel powered cars with EVs or hybrids and in 2022 these made up 42% of all company cars. This has resulted in an improvement of just under 30% in the overall carbon intensity of company cars.

Trialling combined heat and power generators (CHP)

CHP is a highly efficient process that captures and utilises heat which is a byproduct of electricity generation and can reduce greenhouse gas emissions by up to 30%. CHP systems are being trialled at selected sites, with the intention of installing as many as possible to significantly reduce energy use and consequential greenhouse gas emissions.

Product packaging

Significant work is under way as we seek to improve the use of recycled packaging and increase the ease to recycle. This involves actions such as beginning to remove any unnecessary packaging, finding ways to eliminate the use of virgin plastic, increasing the use of recycled materials and ensuring any packing materials that are required are easy for customers to recycle themselves. We have been trialling Mole Valley Farmers compound feed bags with a 30% recycled plastic content, moving Premier Leys grass seed to new bags containing 30% recycled plastic content, with many other packaging trials under way across various product categories.

Visit moleonline.com/environment for more information.

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