



## ***Why we must stand up for intensive farming***

*Professor Helen Sang OBE & Daniel Pearsall*

*August 2024*

*Science for Sustainable Agriculture*

**The BBC's coverage of farming and countryside issues, and its editorial bias in favour of small-scale, more extensive forms of agriculture, may be discouraging a more open and evidence-based conversation about sustainable farming and food production. Greater sustainable intensification in agriculture is urgently needed if we are to feed ourselves without wrecking the planet. The world needs to increase food production and availability by up to 70% by 2050 to keep pace with the food needs of an expanding global population, in the face of a changing climate, biodiversity loss and pressure on finite natural resources of land, energy and water. Advances in agricultural science and technology offer multiple ways to deliver on this objective, but only if farmers have the social licence to use them. Influential public service broadcasters like the BBC must be willing to support a more balanced debate, rooted in scientific evidence, rather than pandering to those who hanker for a nostalgic and idealistic past which, in all probability, never actually existed, argue livestock geneticist Professor Helen Sang and SSA co-ordinator Daniel Pearsall.**

A recent article on the BBC website, entitled "[More cattle kept in UK 'megafarms', BBC finds](#)", exemplifies the problematic nature of the BBC's coverage of farming and countryside issues, and how its editorial bias may be discouraging a more open and evidence-based conversation about sustainable farming and food production.

The clear implication of this headline, and of the article itself, is that large-scale, intensive livestock production is de facto undesirable, and that small-scale, more extensive forms of agriculture are better for the planet and for animal welfare.

It included assertions from animal welfare campaign group Compassion in World Farming (CiWF) that the reported rise in large-scale cattle farming was "deeply concerning", and symptomatic of the "desperate, broken and unsustainable food system we have created." The RSPCA said it was opposed to the move towards permanently housing cattle.

The article presented no substantiated evidence of poorer standards of animal health and welfare on large-scale farms, simply citing campaigners' claims of "disease

spreading in crowded sheds and routine overuse of antibiotics.” The existence (and income) of these organisations depends on people believing that standards of welfare are poor and deteriorating: are the BBC alert to this in their reporting?

The reality is that, by any metric, standards of animal welfare on Britain’s farms are high and improving, whether that relates to reduced levels of antibiotic use, tighter legal requirements for housing, stocking densities and transport times, more balanced breeding programmes or more stringent retailer specifications and farm assurance requirements. That is something to be welcomed, recognised and encouraged.

But the BBC’s approach drew largely defensive responses from the industry, with the NFU insisting that “megafarms” are not common in the UK, and one large-scale dairy farmer commenting that although indoor systems can protect cattle from bad weather and allow for better monitoring of health and feed intake, producers are deterred from speaking out “because they know it causes a backlash.”

Meanwhile the Department for Environment, Food and Rural Affairs (Defra) told the BBC it “could not comment on the business decisions of farms that chose to develop and operate large-scale units.”

For an article included in the ‘Science & Environment’ section of the BBC website, it is disappointing that the BBC did not adopt a more balanced approach, and that the potential benefits of large-scale livestock production systems - for more efficient food production, for improved animal health and welfare, and for reduced environmental impact - were not explored in more detail.

Because those benefits are potentially very significant.

Almost a decade ago, the All-Party Parliamentary Group (APPG) on Science & Technology in Agriculture hosted a joint session with the Animal Welfare APPG at Westminster to hear from visiting US farmer Kenn Buelow, co-owner of Holsum Dairies, an 8,400-cow dairy unit operating across two production sites in Wisconsin, all indoor housed.

Above all, the meeting underlined that high standards of animal health and welfare are not a function of size or even production system, but are dependent on having the right management systems in place. This was Mr Buelow’s description of his farming operation:

"The farm’s environmental management system includes a range of independently accredited measures to ensure protection of water quality, air quality, manure management and nutrient recycling. A £3.3m manure digester on-site generates an exportable surplus of renewable electricity, and has virtually eliminated air-borne pathogens and odour, while also providing heat to the parlour, offices and calf nursery and reducing CO<sub>2</sub> emissions by an estimated 45,000 tonnes/year."

"The farm employs three full-time vets, maintains 24-hour observation of calving and daily evaluation of the health of each individual cow. In addition, the dairy has 2-3 trained foot trimmers on the staff, and maintains detailed vaccination, health and veterinary care records for each animal."

"Livestock housing and feeding systems are purpose-built to promote cow health,

comfort and welfare, including grooved rubber walkways, cushioned stalls designed for ease of rising and lowering, 24-hour access to feed, controlled lighting, summer cooling system and access to extra water during the warmer weather."

This bears no relation to the squalid conditions and 'broken system' depicted by animal welfare campaigners, and for good reason. Maintaining high welfare is not only the right thing to do in ethical terms, it also makes good business sense, since healthy, contented cows are also better performing and more profitable.

Meanwhile Holsum continues to seek sustainability improvements, for example by adopting conservation practices, such as cover crops and reduced tillage, on its 5,000 acres, and trialling the use of nitrogen stabilisers with manure to reduce dependence on artificial fertiliser.

The dairy has also switched its digester from green electricity generation to natural gas supply, as a more efficient operating model. Together, the manure from Holsum's 8,400 cows [provides enough renewable natural gas](#) to power, heat and cool 1,860 Wisconsin homes each year.

Indeed, large-scale livestock production systems of this kind bring a whole new perspective to the term 'intensive' when applied to agriculture.

In contrast to its use in the medical arena, where 'intensive care' is positively associated with high standards of precision, monitoring and attention to detail, 'intensive farming' brings negative connotations of environmental harm and poor animal welfare.

But Holsum Dairies are demonstrating that large-scale, high-tech, intensive farming operations can deliver beneficial outcomes for food production, animal health and welfare, and the environment. It would be valuable in planning for future food production and land use requirements in the UK if large-scale intensive livestock farmers were encouraged to be as open about their practices and the results.

Indeed, despite the Government's non-committal response to the BBC, Defra chief scientific adviser Professor Gideon Henderson told the APPG on Science & Technology in Agriculture in January 2022 that reducing grazing on pastureland by rearing ruminant livestock more intensively was one solution to the Net Zero challenge of reducing emissions from the UK livestock sector, so freeing up existing grassland for alternative uses, such as tree planting, biomass production or rewilding for biodiversity gain.

Greater 'sustainable intensification' in agriculture of this kind will be urgently needed if we are to feed ourselves without wrecking the planet.

The UN Food and Agriculture Organisation estimates that the world needs to increase food production and availability by up to 70% by 2050 to keep pace with the food needs of an expanding global population, in the face of an escalating climate crisis, biodiversity loss and pressure on finite natural resources of land, energy and water.

Advances in agricultural science and technology offer multiple ways to deliver on this objective, but only if farmers have the social licence to use them.

That's why the BBC's default position against 'intensive farming', and indeed against the use of science and innovation in agriculture and food production more generally, raises serious concerns.

BBC broadcaster Tom Heap gave an insight into the media's positioning on this issue when he spoke to the APPG on Science & Technology in Agriculture a few years ago.

He explained that, in a competitive news environment, journalists and news editors tailor their coverage to the beliefs, interests and inclinations of their audience, and that, in his experience, a defining feature of public attitudes in relation to food and farming is "a fairly obsessive worship of the natural", and a suspicion of human intervention.

"Innovation and ingenuity are the unmentionable ingredients," he said.

But he also acknowledged that this mistrust of ingenuity in our food is absurd, noting that the discovery of cooking was one of the first human interventions in food, and that none of the modern crop varieties which make up our farmed landscape are 'natural', with most bearing only a passing resemblance to their wild ancestors.

And yet some people still cling to the belief that food is delivered by nature. The closer food appears to its wild, hunter-gatherer state the better, hence the positive connotations associated with marketing terms such as natural, outdoor-reared and free range, he observed.

Interestingly, Tom Heap also suggested that the narrative of peril surrounding high-tech agriculture may lose traction and relevance as the fundamental global challenges of food and energy security loom ever larger.

That may be so, but only if influential public service broadcasters like the BBC are willing to support a more balanced debate, rooted in scientific evidence, rather than pandering to those who hanker for a nostalgic and idealistic past which, in all probability, never actually existed.

***Retired livestock geneticist Professor Helen Sang OBE FRSE FRSB previously led a research programme at The Roslin Institute (University of Edinburgh) on the development and application of genetic technologies in the chicken. This research included applications in basic biological research, in biotechnology and in the potential of developing genetically disease resistant chickens, with funding from Government (mainly UKRI-BBSRC) and industry. She is a member of the Science for Sustainable Agriculture advisory group.***

***Daniel Pearsall is an independent consultant specialising in communication and policy development in the farming, food chain and agri-science sectors. He runs a small livestock farm in Scotland. He co-ordinates the Science for Sustainable Agriculture initiative.***