SUSTAINABLE FARMING

INCORPORATING **AWA NEWSLETTER**

VOLUME 2 | ISSUE 1 | SPRING 2017

PIG BREEDING

DO YOU KNOW WHAT YOU'RE BUYING?

PLUS

NEW AWA LOGO

BEEF: THE BIGGER PICTURE

LAMENESS IN SHEEP

CHALLENGING TIMES

After what was an incredibly divisive election season, I wanted to take this opportunity to reaffirm our commitment here at AGW to our farmers, ranchers and supporters—and to the importance of sound science as a foundation for all we do. Because the so-called post truth era could present significant challenges to all our interests.

Most people wanted an end to business as usual. But while we remain apolitical at AGW, there are real concerns about the future of sustainable food and farming businesses under the new administration. On the campaign trail, President Trump said, "Family farms are the backbone of this country," reaching out to those affected by market consolidation and globalization. Yet this sentiment was not reflected in his selection of agricultural advisors. Dominated by agri-business interests, it is hard to believe the new administration will do anything to address the corporate strangle-hold on food and farming, for example. Given the pre-election rhetoric of climate change denial, downplaying the health and ecological impacts of pesticides and pledging to reverse pollution regulations, huge questions remain over the future direction of U.S. agriculture—at a time when decisive action is needed to overhaul the failed industrial farming model and support the transition to sustainable alternatives.

So we will redouble our efforts to build an inclusive, environmentally sustainable, high-welfare, transparent and accountable food system for all, based on sound science; and do more to support the thousands of pioneering independent farmers and ranchers with whom we work.

With this in mind, I am proud to introduce our new Animal Welfare Approved logo (see opposite). While our foundations lie in improving farm animal welfare, we've long know the standards you apply in practice result in many positive outcomes. Indeed, the program has always operated on the simple understanding that the way we raise our animals, the impact of the farming system on the environment and the nutritional quality of the meat, milk and eggs produced are all intrinsically linked.

Animal Welfare Approved will always be a welfare-based program; however, the new logo is part of a strategy to ensure the wider societal benefits of your farming practices are communicated to a public that is increasingly concerned about how food is produced, as well as to reassure consumers that eating sustainably produced meat and livestock products is, indeed, a responsible act.

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NEW AWA LOGO

Rebrand will promote societal benefits beyond animal welfare

The Animal Welfare Approved (AWA) program is launching a new logo to celebrate transparency, accountability and the connection between people, animals and land.

The announcement is the culmination of months of constituent feedback, market research and design work to help farmers and ranchers in the AWA program better communicate the wide-ranging benefits of their production systems above and beyond high-welfare management—including food quality and nutrition, human health, farm biodiversity, soil protection and enhancement, carbon sequestration and more.

One of A Greener World's growing family of leading food labels, the AWA program has grown rapidly since it was first established in 2006, expanding its reach, influence and farmer numbers. The program is now one of the most highly regarded food labels for animal welfare, pasture-based farming and sustainability, as acknowledged by Consumer Reports. In late 2016, A Greener World learned that the license for its former AWA logo would not be renewed, and embarked on a strategic campaign to launch a new logo to effectively communicate the wider benefits of AWA farming and ranching.

"When we take care of our people, our animals and our land, we achieve true sustainability. As the *only* completely pasture-based program in North America with high-welfare handling and management from birth through slaughter, we kept hearing that there was a need for our logo to reflect the full, holistic picture of AWA farms and their benefits to the wider community—and society as a whole," says Emily Moose, Director of Communications and Outreach. "We wanted to launch a new logo that reflects our program's ethos of transparency and true sustainability."

"While we are still first and foremost an animal welfare label," Moose adds, "we are excited to highlight the range of other amazing benefits our farmers and ranchers offer, too."

Rebranded AWA marketing materials are in production; check availability on the merchandise portal of our websites, ***animalwelfareapproved.us*** *and* ***animalwelfareapproved.ca****. The new logo will be available in French and Spanish, with plans to translate AWA standards accordingly. Professional labeling support service is available to maximize the benefits of the new logo—contact your regional FMOC (see page 18) for more information.*

IN THE NEWS...

MEAT PROCESSING 101

The Niche Meat Processor Assistance Network (NMPAN) has published a set of four short factsheets for anyone interested in finding out more about local meat processing. Entitled *What is Local Meat Processing?, What Are The Rules?, Small Plant Economics* and *New Plant Checklist*, the four new NMPAN factsheets provide farmers and other food businesses with a basic introduction to meat processing, inspection regulations and the economics of running several types of processing facilities. Download the factsheets at **nichemeatprocessing.org**

GRASSFED PRICE GUIDE

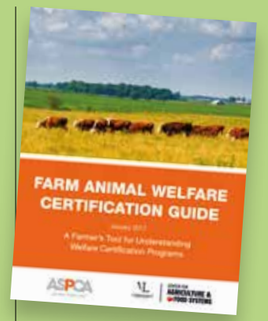
The USDA monthly grassfed beef report now includes useful price comparisons between direct marketed grassfed and commodity beef. Produced by the Agricultural Marketing Service, the monthly report also includes wholesale negotiated prices and direct-to-consumer prices for carcasses and cuts, and charts direct grassfed average retail price by region. A small and very small producer section includes a dressed carcass price range and weighted average dressed carcass price. Visit **ams.usda.gov/market-news/weekly-and-monthly-beef-reports**

ANTIBIOTIC CONCERNS

Scientists have discovered a dangerous multiple antibiotic-resistant bacteria on a Midwest industrial pig farm. Researchers from Ohio State University found bacteria resistant to carbapenems, a 'last resort' antibiotic used in human medicine—but puzzlingly not approved for use in food-producing animals. One idea is that a similar antibiotic called ceftiofur, widely used in young pigs, is to blame. Ceftiofur molecules are structurally similar to carbapenems and could be confering resistance to the vital human medicine—yet another un-intended consequence of routine antibiotic use.

CERTIFICATION GUIDE

A new farmer's guide to welfare certification is available from the ASPCA and Vermont Law School's Center for Agriculture and Food Systems. Available in paper and digital formats, the *Farm Animal Welfare Certification Guide* explores the operational and business considerations of certification and includes a comprehensive review of the standards and requirements of three animal welfare certifications—Animal Welfare Approved, Certified Humane® and Global Animal Partnership—plus useful case studies. Visit **www.aspca.org/farmcertification**



IN THE NEWS…

CFSA

(L to R) Amanda Hull, Roland McReynolds, Emily Moose, Callie Casteel and Kathryn Spann

AWA: INSTITUTION OF THE YEAR

Animal Welfare Approved (AWA) was awarded Institution of the Year at the Carolina Farm Stewardship Association (CFSA) 31st Annual Sustainable Agriculture Conference in November.

The award recognizes an outstanding institution that supports and advances the work of sustainable agriculture leaders in the Carolinas. The conference took place at the Sheraton Imperial Hotel in Durham, NC, with almost 1,200 farmers, agriculture advocates, foodies and educators.

AWA staffers Emily Moose, Callie Casteel and Amanda Hull, with Kathryn Spann of Prodigal Farm (AWA meat and dairy goats), collected the award from the CFSA's Roland McReynolds (above). "We are humbled and honored to have received the CFSA's Institution of the Year Award 2016," said AWA's Emily Moose. "We accept the award on behalf of the thousands of farmers and ranchers we work with, and offer a special heartfelt thanks to our loyal supporters and donors who make our certification services free."

With plenary sessions and over 65 workshops and demonstrations, delegates could also join one of five pre-conference bus tours of the area's most innovative farms and restaurants. The livestock tour featured stops at various local farms, including Prodigal Farm (AWA meat and dairy goats) and Bull City Farm (AWA laying hens, pigs and AWA, Certified Grassfed by AGW meat sheep) with tour host Martha Mobley of Meadow Lane Beef (AWA meat sheep and beef cattle).

TICKET TO RIDE

Amtrak passenger trains could offer a new route to city markets, following a successful five-week trial in Illinois. As reported in the *Midwest Producer,* Wes Jarrell of Prairie Fruits Farm and Creamery (AWA dairy goats) sent 100 pounds of AWA goat cheese on the 135-mile trip from Champaign, IL, to Chicago's Union Station once a week in portable coolers with thermometers monitoring the temperature inside. "We're just trying to help serve farmers," said Paul Sanders, Amtrak's manager of facilities at Union Station. Farmers interested in using Amtrak services can contact Sanders at paul.sanders @amtrak.com

AMI SPOTLIGHT ON WELFARE CERTIFICATION

Animal Welfare Approved was invited to the American Meat Institute's Animal Care and Handling Conference in Kansas City, MO, in October.

John Whiteside of Wolf Creek Farm, VA (AWA, Certified Grassfed by AGW beef cattle), represented the program on a panel discussion about animal welfare certification, with representatives from American Humane Certified and Certified Humane.

"I was honored to represent AWA and talk about the benefits of third-party certification," said Whiteside. "I was particularly impressed AMI invited primary producers as representatives—a refreshing and welcome change."

"The debate was fascinating, but what became clear from discussions is the conventional animal protein industry is taking note of the growing consumer demand for more 'traditional' animal proteins produced on independent farms like ours. There's a lot of ambiguity and confusion about farm certifications and label claims surrounding issues like ownership of animals, where animals are raised and finished, what is being fed, how animals are husbanded and so on. And it was evident from the various animal welfare certifying organizations represented on the panel that the definition of 'traditional' varies significantly.

"Farm certifications need to be very clear about what they are certifying and fully transparent in their methodologies, or they risk capture by the ag-industry, thereby making their labels less meaningful—or worse—to consumers and independent family farmers alike. At the same time, independent farmers and ranchers should consider whether the definitions used by their chosen certification will ultimately protect the long-term interests of their businesses."

BEREA AMONG THE BEST

Berea College Farm was ranked second in a national survey by Online College Plan. The nation's top 60 college-affiliated farms were ranked according to criteria such as farm size in acres, crop variety and sustainability-related degree options. Berea College in Berea, KY (AWA beef cattle and pigs), bested numerous elite schools, including Yale, Dartmouth and Vassar. Berea is one of the oldest continuously operating educational farms in the U.S. AWA beef and pork produced on the farm is served in the College's dining hall and also sold locally.

BEREA COLLEGE FARM

KENT MILLER STUDIOS

GRASSFED BURGER SUCCESS

A burger made with Certified Grassfed by AGW beef reached the top five in a national burger competition. Savannah-based chefs, Michael and Laurence Gottlieb (above), blended local mushrooms with beef from Hunter Cattle Company in Brooklet, GA (AWA, Certified Grassfed by AGW beef cattle) for the James Beard Foundation's Blended Burger Project contest. Beating more than 340 chefs, the Gottliebs were invited to cook their acclaimed burger at a fundraiser event at James Beard House in NYC.

JEAN-PASCAL QUOD

SEAWEED MAY REDUCE METHANE

Feeding seaweed could help reduce methane production in farmed ruminants.

Scientists at the Commonwealth Scientific and Industrial Research Organisation (CSIRO) in Australia found certain seaweed species that significantly reduce methane production in test-tube samples from cow stomachs. One particular seaweed species, *Asparagopsis taxiformis,* reduced methane production by more than 99 percent at doses equivalent to less than 2 percent DMI. Experiments are now under way feeding seaweed supplement to live animals to confirm the laboratory results and assess other impacts, such as productivity. "If farmers could supplement their feed with seaweed," says CSIRO's Michael Battaglia, "this might just help with two of the biggest challenges of our time: fighting climate change and growing more food with fewer resources."

MIKE SUAREZ

PASTURE RAISED EGGS ARE HEALTHIER

Eggs from pasture-raised hens contain higher levels of key nutrients, according to a new study published in the *Food Chemistry* journal.

Researchers at Reading University in the UK analyzed 270 eggs on sale in various UK supermarkets and found egg yolks from birds that had continuous access to pasture contained up to 30 percent more vitamin D than those from birds kept in sheds or cages. The pasture-raised eggs also had elevated levels of a form of vitamin D called 25-hydroxy D3, and higher levels of calcifediol, which has been shown to increase the body's ability to absorb calcium. Vitamin D is essential for health and can help prevent certain cancers, heart disease and diabetes.

"Both vitamin D3 and 25-hydroxy D3 were significantly different according to production system," say the researchers.

Opinion

BEWARE GREENWASHING

When it comes to food labels, if it sounds too simple, it probably is, says Urvashi Rangan

Today's consumers want to know more about how their food is produced than ever before. And they are increasingly demanding better food raised according to higher welfare standards, with greater environmental protection and improved worker conditions, for example. But how do they know if they are really getting what they want?

Consumer research shows that label claims like chemical free, spray free, free range or natural continue to cloud the market. In many cases these terms actually mean very little, with minimal legal definition or enforcement; and even where a label claim is legally defined, most don't require on-farm inspection to be verified.

Take the "natural" label claim. Year after year, consumer surveys show most people think it refers to how animals are raised, so they seek it out on the shelves. Yet the natural label is the subject of dozens of lawsuits because it doesn't really mean anything at all. Similarly, a recent article from Stephanie Strom in the *New York Times*, "How cage free hens live," reveals the dark side of cage-free egg production. The story reveals how battery hen operations are losing market share to cage-free systems that don't actually deliver on their promises, with claims of high mortality and disease among cage-free birds. That's largely because the government only requires cage-free hens to be raised without cages—and nothing else. So no improvements in husbandry practices for animal health, extra space, better air quality or manure/litter management, outdoor access and so on. Despite the positive-sounding label, the cage-free eggs found in most supermarkets inevitably come from intensive systems where thousands of hens are confined indoors in barns, with all the associated welfare concerns. Inevitably, these systems result in a higher risk of disease and higher mortality rates—a gruesome possibility that Strom's article features. The article even ends with the question of whether cage-free is really a positive step forward at all.

But I think there is a far better question to ask: Are there choices in the market today that offer cage-free eggs from hens that led a healthy life outdoors on pasture or range? Of course, the answer is yes. But the playing field in the marketplace isn't level; and without clear information it is hard—if not impossible—for the average consumer to quickly and easily identify which suppliers can be trusted. That's where meaningful, certified labels come in and can be a powerful choice to support market change that matters.

Labels like Animal Welfare Approved, Certified Organic, American Grassfed Association and Biodynamic are all examples of meaningful certification programs that not only have comprehensive standards, but also involve regular on-farm verification. They provide much more value than terms like cage-free or natural and, in many cases, subsume those claims. In fact, all of these programs demonstrate why raising animals out of cages or confinement is not only meaningful, but also part of a more holistic management system, ensuring food is produced in the healthiest, most sustainable way possible. More broadly, certified labels provide the market with consistently reliable choices and increasingly offer independent farmers new opportunities to collectively gain access to larger distribution systems.

Without checks and balances, labels like cage-free and natural are almost meaningless. They usually aren't verified and generally exist to satisfy market demand. At best, they're used by well-intentioned producers and food businesses who don't want the hassle of certification; at worst, they are abused by those who seek only to profit from consumer confusion, and so contribute to a dishonest marketplace.

Independent, third-party certified labels are the antidote to this cloud of market deception, providing truly meaningful choices for better food and more sustainable production systems. Sadly, Strom's article represents another missed opportunity to highlight—and applaud—the existence of alternative labels that really do meet consumer expectations and are striving to affect real change through the marketplace.

Dr Urvashi Rangan has been a scientific investigator, policy decoder, spokesperson and advocate on a wide range of food safety and sustainability issues for the last 20 years

JUST HOT AIR?

When focusing on GHG emissons—and methane in particular—we must not lose sight of the bigger picture, says Dave Stanley

MIKE SUAREZ

"Cattle responsible for more global warming than the greenhouse gas emissions from all the world's transport!", "Save the planet: Go vegetarian!", "Eat less beef (and dairy)!", "Meatless Mondays!", "Do not eat red meat—white meat only!", "Cattle responsible for the clearing of the Amazonian rainforest!" ...

We have all heard it—and it sometimes feels as if the public are being bombarded with anti-beef messaging on an almost daily basis. But are such statements correct? The answer could be "yes" or "no," depending on where in the cattle production system you look and what you choose to measure—or even ignore.

GHG emissions

First, let's consider why the answer might be "yes." In the case of ruminant production, the key greenhouse gas (GHG) emissions are: carbon dioxide from the clearance and burning of rainforest to grow soy and grain for feed; methane —20 times more powerful than carbon dioxide —from ruminant digestive systems, as well as methane and ammonia from slurry/manure; and nitrous oxide—310 times more powerful than carbon dioxide—from the production and application of nitrate fertilizers to grain and grass fields for feed (not to mention the fertilizer run off to watercourses, causing water pollution and coastal dead zones). The GHG emissions associated with growing grain are also a key factor here, as 40 percent of global grain production is currently fed to livestock. In the U.S., the figures are even higher, with 60 percent of corn and 47 percent of soy grown to feed livestock. (Just consider for one minute if all this grain went directly to feeding hungry people instead!)

Looking at the above, it is obvious why many people assume that reducing meat consumption must have social and environmental benefit in terms of mitigating climate change, or that dramatically reducing livestock numbers will deliver significant GHG reductions because methane represents a large proportion of total cattle-associated GHG emissions. In a similar vein, proponents for the intensification of beef production argue that using feedlots and grain to fatten cattle offers significant environmental benefits over extensive cattle grazing systems. Halving the time it takes to get a beef animal to slaughter, they say, will halve the methane emissions, significantly reducing the GHG produced per pound of beef.

Yet this is a very reductionist way of looking at the problem. Instead of focusing on one small part of the cattle production system, we must look the whole picture.

The bigger picture

When officials talk about climate change, they generally measure those GHG emissions deemed 'anthropogenic' (or generated by human activity). This includes emissions arising from burning fossil fuels, industry, transport, electricity generation, buildings, waste disposal in all forms, as well as those associated with agriculture practices, including fertilizer production/use, waste management, growing legumes, land use change (deforestation, loss of grassland and desertification resulting in huge losses of soil carbon) and, of course, the emissions from ruminants we have just discussed.

However, the official classification of which emissions are or are not deemed to be anthropogenic—and thus contributing to climate change —is actually somewhat arbitrary. For example, the carbon dioxide emitted by a rapidly rising world population is not counted; nor are the emissions from the burning of biofuels and biomass for energy generation. The stated reasons for the latter is that the carbon in the carbon dioxide emitted when burning biofuels/biomass originated from the atmosphere through photosynthesis; if produced "sustainably," the process is deemed "carbon neutral" and does not contribute to climate change. But if we apply this same logic, surely the nitrous oxide emitted by legumes in organic farming systems and the methane emitted by pasture-raised cattle should also not be counted as anthropogenic emissions? After all, they are also only returning nitrogen and carbon to the atmosphere as part of nature's nutrient cycles. The debate will no doubt continue ...

Note, too, that there is more carbon in the earth's soils than in the atmosphere and the earth's biomass combined. So a small percentage increase in soil carbon will have a disproportionately larger beneficial impact on atmospheric carbon than eating less meat (or other options). Yet despite mounting scientific evidence, the sequestration of carbon in soil is still not generally counted when considering effects of producing meat from different systems. Furthermore, the removal of methane from the atmosphere by the activity of soil-borne methanotrophic bacteria in well-managed grassland soils is also currently ignored.

Questionable calculations

They key point is this: in climate change calculations, the current practice of including GHG emissions from low input, ecologically sound farming systems that are integrated with nature's nutrient cycles, while also largely ignoring the atmospheric removals and returns delivered by the same systems, automatically equates them

Fueling ignorance: anti-beef material often contains misleading, inaccurate or wholly unscientific claims and imagery

Focussing on methane alone ignores the many positives of grassfed beef production

USDA NRCS

Proponents claim feedlots significantly reduce methane emissions per pound of beef produced

with the environmentally damaging and soil depleting agricultural practices of intensive farming systems, even though the former have very low negative—or even positive—climate change impacts. The emissions from the two farming systems are NOT equal; yet the way the calculations are currently done—and the current public discourse—effectively tars all meat production with the same brush.

All the same?

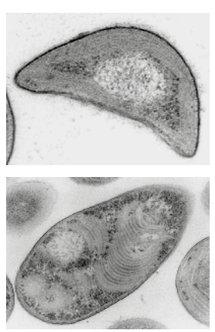
Let's consider extensive grassfed livestock systems with intensive feedlots in more detail.

Methane: According to U.S. data, there are probably no more ruminants in North America today than there were 200 years ago. Yet methane from ruminant enteric fermentation was not a problem in 1800 or before. Grassfed ruminants are not a climate change contributor today and, at sustainable stocking levels, well-managed grassland ecosystems are carbon neutral, because soil-borne methanotrophic bacteria remove atmospheric methane, while carbon dioxide is removed by photosynthesis and the carbon is sequestered in the soil ecosystem.

When measuring the methane associated with today's predominately intensive U.S. beef systems we must consider the GHGs associated with soy and corn production, enteric fermentation, methane from slurry lagoons, from the 30 percent food that is wasted and dumped to landfill, and from anaerobic treatment of the sewage. While the methane from enteric fermentation from extensively grazed and grassfed cattle may be higher, if we look at the bigger picture, the total GHG emissions will be substantially less when compared to intensive grain-fed feedlot systems.

Grassland: Historic, biodiverse prairieland, along with established pastures containing deep rooted mixed grasses, legumes, herbs and local wildflowers, remove around 50kgs of methane per hectare every year from the atmosphere—that's about the same as emitted by one beef animal per year. As part of a mixed farming system, this pastureland could sequester between 3-5 tons of carbon per hectare per year, helping to mitigate climate change. It is NOT the same as grassland consisting of commercial ryegrass with a bit of white clover and dependent on inputs of inorganic nitrate fertilizer, which kill methanotrophic bacteria in the soil, and overall contributes to climate change.

Cattle breeds: Cattle may all look similar; however, their genetics can be very different. Historic breeds of cattle and bison that evolved to thrive on natural grassland are NOT the same as many of today's cattle breeds that have been selectively bred to rapidly finish on a high-grain diet.



FEDERATION OF EUROPEAN MICROBIOLOGICAL SOCIETIES

Official GHG statistics do not include the methane oxidizing activity of soil-borne methanotrophic bacteria in well-managed grasslands

Efficiency: We are told that fast growing, grain-fed cattle are more efficient. But low input, extensively grazed cattle are low cost to the farmer, offering a higher margin and, hence, profitability. They are NOT equal to energy-intensive cattle fed imported soy grown on land deforested in Brazil or grain grown in the U.S. requiring chemical fertilizers and pesticides, along with all the associated transport impacts, and requiring around eight times more energy throughout their life cycle. These intensive cattle systems have high input costs, low margins and low profitability to the farmer, and are not efficient.

Animal welfare: A grazing herd on diverse, herb-rich grassland will have access to the full range of trace elements, can express their natural behavior, and the meat animals will stay in the same system as the breeding herd. It is NOT the same as cattle housed in sheds or in yards, unable to graze and being forced fed a predominantly grain-based diet for much of their lives, propped up with antibiotics to limit the digestive and respiratory issues they would otherwise suffer.

The meat: Well-managed grassfed cattle produce wholesome, flavorful beef, rich in trace elements and marbled with healthy omega-3 rich fat. It is NOT the same as bland, grainfed beef containing an unhealthy ratio of omega 6 to omega 3 fats, potentially along with unspecified growth promoters.

Solutions?

There is no doubt that we face huge challenges if we are to preserve our planet in a viable state for future generations. We must deliver significant reductions in our total use of energy, in unnecessary and trivial consumables and in waste. Substantial challenges lie with global food and meat consumption, the processes and production systems that lie behind it and increasing demand from a growing population. Part of the solution will surely lie with the "eat less—but eat better" approach, where sustainably produced grassfed meat from ruminants falls firmly in the "better" camp. In seeking further solutions, however, we must be very wary of "single issue environmentalism," where research and policies fail to take an holistic, whole life cycle approach. Focusing on one factor alone can lead to the wrong measures being adopted, with potentially catastrophic results. When addressing GHGs and targeting methane, we must not allow the essential climate change mitigating, extensive, 100 percent grassfed "baby" to get thrown out with the intensively produced livestock "bath water."

Dave Stanley is a beef farmer and a board member of the Pasture Fed Livestock Association in the UK. He is also a director of the Institute of Environmental Management and Assessment. He was a key speaker at AGW's Positive Pasture event in San Francisco in November 2015

POSITIVE PASTURE

The first of a short series, this article is based on a presentation given by Dave Stanley at A Greener World's Positive Pasture conference, held in San Francisco in November 2015. The event brought together for first time in the U.S. the world's top scientists in soil and carbon sequestration, livestock management and food nutrition with leading NGOs and funding organizations concerned with animal welfare, public health, social justice, environmental protection and wildlife conservation to explore the complexities of sustainable farming—and whether pastured ruminants have a place in sustainable agriculture.

Although questions remain over appropriate levels of global meat production and consumption, the clear consensus at Positive Pasture was that ruminants have a vital role to play in supplying high-quality protein from land that would otherwise be far less productive, as well as both mitigating climate change, creating topsoil, increasing the water holding capacity of soil and improving farmland biodiversity.

BUYER BEWARE!

Alison Martin and Jeannette Beranger offer advice on making the right choices when buying heritage or traditional breed hogs

The popularity of heritage (or traditional) breed hogs has skyrocketed in recent years, largely due to numerous chefs discovering the fabulous flavor of how pork is supposed to taste.

There is nothing like the flavor of old-fashioned hogs raised on pasture or range and in a natural environment. Popularity, however, can be a challenge for a rare breed—especially when some people are tempted by quick profits and high returns. When advising newcomers about how to get involved with heritage hogs, we always stress three key points that can make or break success. First, know what you are buying; second, not every animal is breeding quality; and third, make sure your investment in breeding stock is registered.

Know what you are buying

Unfortunately, when it comes to heritage breeds, some folks are out to make a quick buck from buyers who don't have a complete understanding of how the pigs should look and how they should perform. Part of the reason that the flavor of these animals is so intense is due to slower growth. For producers, this can translate into higher feed costs to get them to market. As a result, some have chosen to introduce commercial genetics into their herds to improve growth rates and produce leaner, larger carcasses in a shorter period of time. The downside to this is these pigs are then sold at high prices to unsuspecting buyers as purebred pigs.

Tamworth pigs

LEFT: MIKE SUAREZ | RIGHT (TOP TO BOTTOM): 1936 MEADOWBROOK FARM; HIGH MEADOWS FARM; SCHMIDT FARM; DON ORBERDORFER; ANNA HEATON

One of the most striking and common tell-tale signs of crossbreeding is when Pietrain genetics are crossed into a breed. This is particularly problematic with Tamworth, Berkshire and Hereford hog populations today. The Pietrain pig is distinctive with its long body and "double muscled" legs. When crossed into a heritage breed, the cross will produce fast growing pigs with that long lean body supported by heavily muscled legs. As early as one month of age these piglets will already begin to show heavy muscling. Unfortunately, the show ring favors this body type over the traditional "dirt hog" of days past, so they are becoming more commonplace and are a threat to preserving the historic breed genetics.

Another increasingly common cross is with Kune Kune and Guinea Hogs. Guineas are a small, traditional farmstead hog and are enjoying new popularity with homesteaders and hobby farmers. Because of their rarity, some producers faced with lack of diversity in their herds turned to the cross to produce "Guineas" in colors not normal for the breed. Many are sandy with black spots—a common color in Kune Kune hogs, but non-existent in purebred Guineas. From a genetic standpoint the crosses may look similar, but are not the original breed and should not be sold as such.

To avoid unintentionally purchasing crossbred hogs, educate yourself before you buy: Get to know the breed standards and talk to reputable breeders. When you can expect to pay up to $500 for breeding stock, it really is time well spent.

Not every animal is breeding quality

Typically only the top 10 percent of a population is good enough for breeding. You cannot be certain that a pig will be of breeding quality until it is at least 6 months old. This poses a challenge for breeders who may not have the resources to keep piglets around that long. They may have no choice but to sell only young piglets. Most reputable breeders will guarantee their pigs should they prove infertile or develop a genetic problem that disqualifies the pig from being breeding stock. The other side of the coin is you must expect to pay more for quality stock. But it is worth the extra cost when you are buying the guarantee, and the years of selective breeding put into producing good productive representatives of the breed.

Choose registered breeding stock

Our office gets many calls from people that bought "registerable" animals, only to find the parent stock was never registered. This can be very frustrating for the beginner pig producer who wants to do right by their chosen breed. Always make sure you see the parent's papers or confirm with the breed registrar before buying. But why does this *really* matter?

- **Conserving rare breeds**: All of us who raise rare breeds and work to conserve them do so because of the unique characteristics of that breed. Each has just the right adaptation, personality, performance or appearance that makes it a breed. Conserving these characteristics means mating only within the breed; too many breeds have been lost when the purebreds used to create value in crossing were not maintained and "crossbred out of existence." One of the easiest ways to make sure that you and others are keeping the breed true to its own character is to use only registered purebred breeding stock.
- **Breed promotion**: Maintaining and selecting for breed characteristics ensures the same things that attracted one breeder will attract new breeders. This is important even to those who are raising their animals for market products. Breeders who work together through the breed association raise the level of awareness for both products and breeding stock. One needs to look no further than the highly successful marketing program for Certified Angus beef. By registering animals, we support breed associations and their breed promotion efforts, which benefit all who raise the breed.
- **Raising the value of your animals**: Registering your animals can raise the value of your animals. To the educated buyer, registration helps to ensure they are buying the "real deal" and it shows the commitment of the producer to their breed.
- **Protection from feral hog legislation**: In states that are aggressively trying to control this major problem, it may be a challenge for wildlife service personnel to know the difference between a heritage breed hog and a feral hog. That piece of paper could prove to be quite handy!

There's a bright future for heritage pigs, but it's our duty to be their stewards and not change them into commercial hogs. It would be tragic to lose centuries-old breeds for the sake of short-term profits in today's markets.

For more information on heritage hog breeds, and what it takes to work with them, visit ***www.livestockconservancy.org***

Alison Martin, PhD is Executive Director and Jeannette Beranger is Senior Program Manager at The Livestock Conservancy

Mangalitsa

Gloucestershire Old Spots

British Saddleback

Guinea hogs

Oxford Sandy and Black

LAMENESS IN SHEEP

BARTCO/ISTOCK

Josephine Child provides an overview of current best practice in pasture-based systems

Worldwide, lame sheep have huge welfare and economic implications, including reduced daily live weight gain, reduced lamb birthweight, increased disease immediately around lambing time in ewes, poor colostrum production and high culling rates in flocks.

The main causes of lameness can be broken down into non-infectious and infectious categories. Non-infectious causes include shelly hoof (or white line disease), toe granulomas and toe abscesses. Infectious causes represent the biggest concern and include interdigital dermatitis (foot scald) and foot rot (sometimes known as contagious foot rot).

Historically, these cases have been managed with routine or severe hoof trimming. However, recent research strongly suggests that excessive foot trimming, particularly for infectious causes, can not only impair the healing of the foot and prolong the recovery time, but also significantly increase the risk of spreading infection to other animals.

Non-infectious causes

White line disease is characterized by the separation of the hoof from the sole of the foot at the white line. Often linked to environmental conditions, the lameness is caused by dirt and debris becoming packed into the white line region. Mild cases are common and may not cause lameness. Careful paring of the hoof to remove loose horn will stop dirt and debris collecting in the white line region. More severe cases may lead to toe abscesses and the build-up of pus and secondary infection of the white line, requiring antibiotics.

Most toe granulomas are actually caused by over trimming of feet, although chronic exposure to wet pasture is also thought to be a major contributing factor. Taking effective action to prevent conditions that favor foot rot and training of shepherds in appropriate foot trimming will prevent most cases of toe granulomas.

Infectious causes

- **Interdigital dermatitis (scald)**: Interdigital dermatitis or foot scald is caused by the *Fusobacterium necrophorum* bacteria and is characterized by moist reddening of the inter-digital skin, but with no associated foul smell. Foot scald is usually found in sheep and especially lambs on continually wet, coarse pastures.
- **Foot rot**: Foot rot is caused by a secondary invasion of the opportunistic *Dichelobacter nodosus* bacteria and is characterized by a foul smell and (usually) gray pus. *D. nodosus* cannot invade the dermis without prior infection, such as scald, or other damage to the foot. Foot rot is highly infectious and is rapidly transmitted between sheep in warm, moist conditions via the environment or on inadequately disinfected foot trimming shears, trucks or trailers, for example.

While scald cannot be eliminated due to the natural prevalence of *F. necrophorum* in the soil, the cause of footrot, *D. nodosus*, can only survive for 2–3 weeks in pasture and is spread by infected sheep, meaning eradication is possible in some locations. Following an extensive coordinated elimination program in western Australia, for example, less than 0.7 percent of flocks in the region now have virulent foot rot.

Treatment

As scald is a relatively superficial infection, individual cases are easily treated topically using oxytetracycline aerosol sprays. Larger numbers of sheep, however, can be treated with a 10 percent zinc sulfate or 3 percent formalin foot bath solution according to the manufacturer's instructions.

Treating foot rot is more problematic. The best current treatment is a long-acting injectable antibiotic combined with the removal of any debris from the interdigital space and the application of topical oxytetracycline (usually in spray form). As foot rot infection is more invasive, foot bathing is generally not considered an effective treatment, although it may help minimize spread. Where foot rot affects more than 5-10 percent of the flock, consider vaccination as part of a control or eradication strategy to reduce continual shedding of bacteria in the environment and build immunity.

While careful paring of a misshapen but sound foot can help prevent debris collecting in pockets formed by long or loose horn, the age old practice of severely trimming back feet is now thought to be unnecessary—and even counterproductive. A recent study looking at bacteria cultured from foot trimming shears showed that most disinfection processes are ineffective and repeatedly trimming infected feet represents a high-risk route for transferring foot rot between animals.

It is easy to confuse the different lameness conditions. If in any doubt, ask your vet to examine the affected sheep to advise appropriate treatment and discuss prevention strategies (see panel, left).

Culling

Culling, combined with selective breeding to establish resilience and avoid breeding lines that are repeatedly lame, is now considered an important prevention strategy for lameness. Mark and cull persistently infected animals that have been treated on more than two occasions. Not only are these sheep likely to be significant reservoirs of infection, but research shows that susceptibility to foot rot could be up to 20–30 percent heritable in some breeds.

Josephine Child BVetMed MRCVS qualified from The Royal Veterinary Practice, London, in 2011. She specializes in sheep, particularly lameness and parasites at an XL Vets member practice

5-point plan

Culling: Mark and cull sheep that have received more than two antibiotic treatments for lameness. Numbers of lame animals—and therefore culls—should reduce dramatically after the first year or so.

Quarantine: Quarantine and observe all incoming sheep for at least 28 days to ensure you are not introducing new infection. Foot bathing new sheep and leaving them on concrete/hard standing until feet are dry is good practice for improving foot health. Try to buy animals from farmers who operate a strict lameness control strategy.

Rapid treatment: Quickly identify and move lame sheep (or sheep with lesions) to quarantine. Treating animals within three days of identification will dramatically improve recovery time and minimize shedding of infection on pasture. A correct diagnosis is essential to ensure appropriate treatment, including the right antibiotics, if necessary.

Avoid spreading infection: Bacteria multiply and spread quickest in warm, wet areas, so take steps to improve environmental conditions, particularly where sheep gather. Improve drainage or lay gravel around troughs or gateways to reduce poaching and improve cleanliness/drainage of handling areas. Rotational grazing, low stocking rates and a closed flock will also reduce disease pressure.

Vaccination: Depending on your circumstances, consider introducing vaccination as part of a prevention/control strategy in flocks with more than 5-10 percent prevalence of foot rot to establish immunity and reduced shedding of bacteria.

JOSEPHINE CHILD

Interdigital dermatitis or foot scald, caused by F. necrophorum bacteria

MANAGING PARASITES

Multi-species grazing will dilute parasite numbers in pasture

It's not possible to eliminate internal parasites, says Anna Heaton, but you can take steps to minimize the risks to your animals—and your bottom line

Internal parasites can potentially pose a problem for any livestock. But while there is no single solution for parasite control—and you can never completely eliminate them from your farm—a number of options do exist and, with a bit of thought, it is possible to adapt them to your specific farm situation. By understanding the key factors outlined below, you can keep internal parasites at a level where they are not adversely affecting your animals—or your bottom line.

Stocking density and clean grazing

The more tightly you stock animals on a particular piece of ground, the greater the risk of them coming into contact with worm eggs deposited by their herd or flock mates.

In extensive systems, low stocking densities mean the animals benefit from an overall dilution effect, where parasite eggs are spread over a wider area, and they have more freedom to move away from areas where they have dunged to graze fresh pasture with less parasite risk.

If grazing needs to be more intensively managed, the concept of "clean grazing" can be used. Land that has not been grazed by a particular species for several months or more, or has been cropped and then put back into grass, will inevitably have a lower parasite burden and can be considered as "cleaner" than land that has been continuously grazed. Younger animals have less resistance or immunity to parasites than older animals, and any clean grazing should therefore be offered to them first.

Rotation of pasture

As with stocking density, if one piece of land is continuously in use there is greater potential for a gradual increase in the population of parasite species. Where stock are kept very extensively, as occurs in some cattle operations, parasites may never reach a level where they affect the animals' health. But for pig and poultry operations, where the animals need to be close to their huts or shelters, continual use of the same piece of ground will mean the parasite is far more likely to complete its life cycle, and the land will eventually become contaminated. As a result, parasites may reach levels where livestock growth and production may be compromised and treatment is necessary.

The simple answer is to move animals regularly and either utilize that particular area with another species, re-seed/crop it or, if possible, leave it fallow for a period of time. While some parasites will survive without a host, the longer they are left without one, the more chance that larvae will die before they can complete their life cycle. Therefore, the longer you can leave a piece of ground without the same species returning, the better. The minimum amount of time to show any benefit is about 70 days; over 12 months is preferable, although this may not be practical.

Understanding life cycles

Understanding the life cycle of the particular parasite risks on your farm will help in adopting grazing and management strategies to avoid key risk periods and provide 'safer' pasture for your animals. Some parasites need an additional species to complete their life cycle. For example, the liver fluke spends part of its life in a snail, so keeping livestock away from wetlands or poorly drained fields can significantly help reduce the risk. Another example is the meningeal worm, which normally affects deer. This parasite is often fatal for sheep and goats who are unnatural hosts for it. As well as being carried by deer, the worm also spends part of its lifecycle in slugs or snails. Keeping sheep and goats away from wet areas and avoiding pastures with high deer traffic can minimize exposure.

Multi-species management

Although there are a few exceptions, parasites are largely species specific. In other words, internal parasites that affect cattle generally do not affect pigs or sheep, and vice versa. In the normal life cycle, worm eggs are deposited on the pasture in manure; the eggs hatch and develop into larvae, which are eaten by grazing animals, and the cycle continues. However, if sheep eat cattle worm larvae or if cattle eat sheep worm larvae, the larvae are unable to complete their life cycle and cannot produce more eggs to be shed on the pasture. By grazing susceptible animals alongside—or after—non-susceptible animals, it is therefore possible to dilute parasite numbers in pasture.

Sheep and goats are similar enough that they do share worms, so grazing them together does not reduce the overall worm burden. However, introducing sheep or goats to cattle grazing will improve parasite control. Pigs and poultry can also be brought into the equation. In smaller rotational systems, pigs can come behind cattle or sheep. Similarly, grazing sheep or goats in poultry pastures can also help reduce parasites, as well as assist with pasture management.

In 2007, researchers in Oklahoma studied parasite levels when cattle were grazed as the sole species or grazed with goats. They found cattle grazed with goats needed less than a quarter of the worming treatments than cattle grazed as a single species. Not only does this cohabitation of species promote animal health, it also reduces production costs of administering wormers and reduced growth rate when animals are infested.

Improving natural resilience

Some animals are naturally more susceptible to parasites. In the average flock or herd, for example, around 20 percent of the animals will carry over 75 percent of the worm burden, and are responsible for shedding the majority of parasite eggs. In a closed herd or flock, where breeding replacements are produced on-farm, identifying and removing individuals who are least resilient will improve the herd or flock's natural immunity to any background worm levels. You can start by simply identifying animals that seem to be affected by parasites when the others are not. Examples might be goats or sheep with high FAMACHA scores or individual cattle that are unthrifty or have diarrhea. Remember these symptoms could result from causes other than parasites, so use ongoing monitoring such as individual fecal egg count tests to confirm the problem. Also, some breed types, such as the hair sheep Katahdin, St. Croix and Barbados Blackbelly and the Kiko and Spanish goats, are naturally more resilient to parasites, so introducing these genetics to your herd or flock could also improve flock or herd resistance.

Plants against parasites

Finally, some plants have been shown to assist in parasite control. For example, grazing sheep on plants with high levels of condensed tannins, such as sericea lespedeza, birdsfoot trefoil and chicory, has been shown to lower fecal egg counts.

Anna Heaton is Animal Welfare Approved's Lead Technical Adviser

KEY POINTS

- Monitor what is happening on the farm
- Understand parasite life cycles on your farm
- Try to keep your stocking density low
- Rotate your pastures
- Adjust grazing plans according to parasite threat
- Plant some alternative, high tannin forages
- Use multi-species grazing
- Look at breeding strategies to increase resistance to parasites

STEVE GOAGHER/ISTOCK

A GREENER WORLD

From advice on how to apply, to professional labeling design services and technical support, we're here to help ...

Your regional point of contact

From Alaska to Wyoming, Alberta to Saskatchewan, our outreach team offers a one-stop shop for farmers, ranchers and food businesses!

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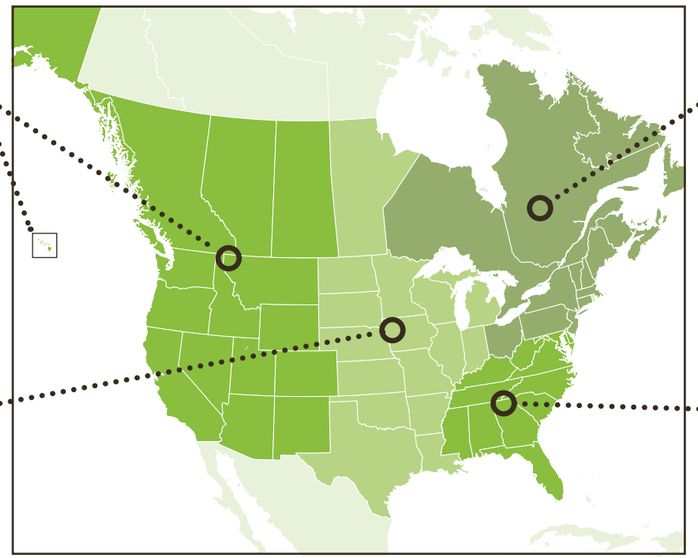

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ARE YOUR MISSING OUT ON BUSINESS?

AGW's Online Directory is the most popular page on our website—so make sure your entry is up-to-date so people can find your products!

With many thousands of visitors every year, our Online Directory helps shoppers find local suppliers of Animal Welfare Approved, Certified Grassfed by AGW and Certified Non-GMO by AGW meat, eggs and dairy products.

Update your listings by contacting your regional coordinator or complete the Online Directory Vendor Form at **animalwelfareapproved.us/farmers/vendor** or call **800-373-8806**.

Services

Need advice?
If you have a question about our farm standards or certification procedures, just get in touch! We also offer a range of *Technical Advice Factsheets*, packed with practical information on numerous topics—from record keeping and biosecurity to best practice castration or avoiding tail docking.

Marketing materials
We offer a variety of free marketing materials to farmers, ranchers and food businesses—including quality metal signs, food labels, vinyl banners (good for farmers' market stalls), point-of-sale brochures, post-it notes—and more!

Is your farm profile up to date?
To help raise awareness about your business, we upload a short profile about every farm and ranch on our website. If you are new to the program the outreach team will be in touch. But if you ever feel your profile needs updating, just contact your regional coordinator.

Got some news? Share it!
We write a dedicated press release for every farm or ranch that joins our programs. But if you're launching a new product or hosting a farm event, we'll do our best to spread the word through our social media and communications networks.

Online directory
Our searchable online directory is the single most popular area on our website, and helps thousands of visitors find suppliers of Animal Welfare Approved, Certified Grassfed by AGW and Certified Non-GMO by AGW products every year. Make sure your listing is up to date and contact your regional coordinator, if necessary.

Sign up for monthly e-news
Our monthly *Focus on Farming* email keeps you up to date with relevant news and information, as well as our program of activities and events.

For further information about any of our services —or if you have any questions—contact your regional outreach coordinator (see map, left).

Programs

Animal Welfare Approved
Acknowledged by Consumer Reports as the *only* "highly meaningful" food label for farm animal welfare, outdoor access and sustainability, Animal Welfare Approved (AWA) is an independent, non-profit farm certification program—and one of the top 5 fastest growing certifications and label claims in North America.

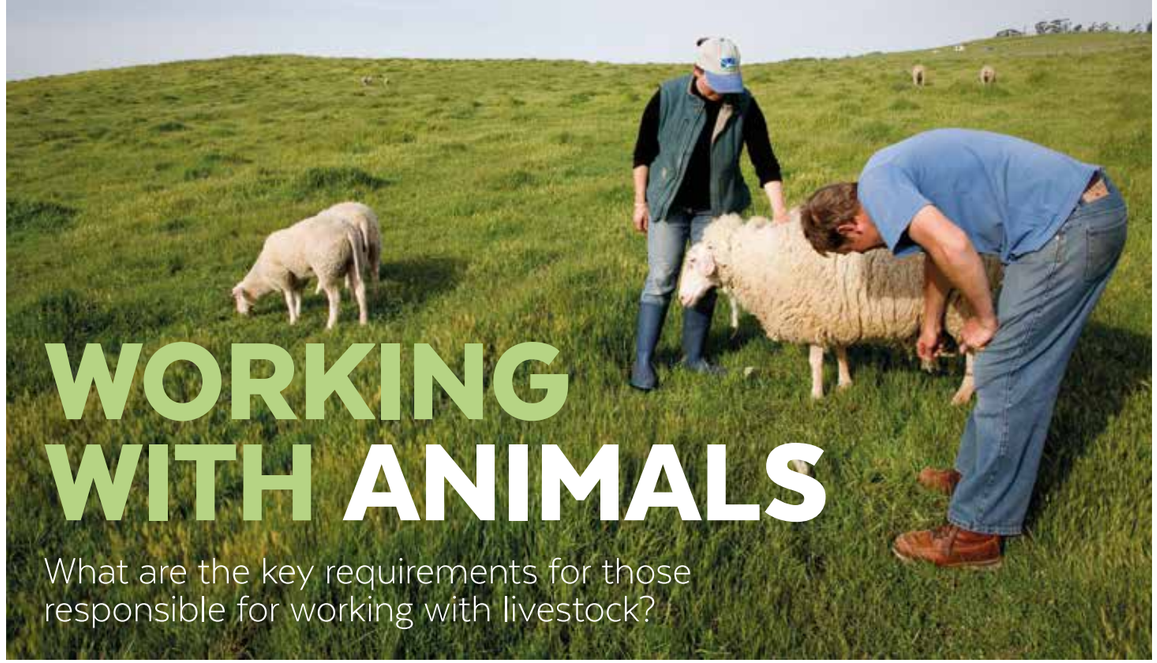
A Greener World's flagship certification, AWA is the only farm certification that guarantees animals are raised outdoors on pasture or range for their entire lives on an independent family farm using sustainable agriculture methods, and is one of only two certifiers in the U.S. to require audited, high-welfare transport and slaughter practices.

Certified Grassfed by AGW
The *only* grassfed certification and logo in the U.S. and Canada that guarantees meat and milk products come from animals fed a 100 percent grass and forage diet, raised outdoors on pasture or range, and managed according to the highest welfare and environmental standards on an independent family farm.

Certified Grassfed by AGW is an optional, additional accreditation for farmers and ranchers who are meeting AWA standards, and enables businesses to clearly differentiate themselves in the marketplace.

Certified Non-GMO by AGW
Certified Non-GMO by AGW is the only food label in North America that helps consumers identify non-GMO (or genetically engineered) products *and* support high-welfare, environmentally sustainable food animal production.

Available to farmers, ranchers and food producers, the Certified Non-GMO by AGW label guarantees food products are not only produced without GMO feed, supplements or ingredients, but is the *only* non-GMO label to offer further assurances about animal welfare and environmental sustainability. The Certified Non-GMO by AGW label is an optional addition for AWA businesses.



WORKING WITH ANIMALS

What are the key requirements for those responsible for working with livestock?

MIKE SUAREZ

Good stockpeople are a basic requirement on any farm or ranch to ensure the health and welfare of livestock. Animals must be cared for by a sufficient number of staff with the appropriate ability, knowledge and professional competence. Research indicates that pleasant, consistent and confident livestock handling correlates with better animal performance. Positive interactions with animals can also have positive impacts on human behavior and, in particular, job satisfaction.

A stockperson is responsible for nutrition and health, as well as handling and husbandry. Observation, interpretation and action are essential skills: Being alert to early signs of distress or disease enables remedial action to be swiftly taken at the first signs of trouble. Pasture-based systems (especially for pigs and poultry) involve different management compared to conventional indoor or feedlot systems. They are inevitably more labor intensive, with less automation and labor-saving devices, and a greater reliance on observation and husbandry skills, complicated by the uncontrolled environmental conditions and the unpredictability of nutrition from grazing and foraging. Observation and handling is also more challenging when herds or flocks are outdoors and potentially more scattered. As a result, it has been suggested there is a greater need for a skilled stockperson in pasture-based systems.

Regular inspection

Farms should employ sufficient personnel with the required theoretical and practical knowledge of the species and husbandry system to recognize whether or not animals are in good health, and whether the total environment is adequate to keep them healthy. Animals should be thoroughly inspected at least once a day, including checking feed and water sources (whether natural ponds or streams or water piped to troughs). Where possible, individual examination should be undertaken of every animal. As this is more challenging in extensive systems, the stockperson should be competent enough to identify any issues and investigate individual animals when overall inspection shows this is necessary.

Walking among the animals is essential to identify lame or sick animals, and allows for positive interactions, such as friendly stroking. Things to check for include body condition, movements and posture, condition of hair or feathers, skin, eyes, ears, tail, legs and feet. Sheep, goats, cattle and bison should be seen to ruminate. Healthy animals should have clear bright eyes, good posture, clean and shiny coat or feathers, sound feet and legs, normal feeding, drinking, sucking or suckling behavior, normal getting up, lying down and resting behavior, and otherwise normal movements and behavior. Attention should also be paid to the presence of external parasites, the condition of droppings and, where possible, feed and water consumption.

Article adapted from Farm Health Online. For more information about practical, science-based advice on high-welfare livestock management, visit ***farmhealthonline.com***

WHAT MAKES A GOOD STOCKPERSON?

- A good knowledge of the animal's requirements, including nutritional, climatic, social and health
- Practical experience of animal care and maintenance
- The ability to identify deviations from normal behavior, health and performance, and to provide or seek appropriate support when these occur
- The ability to take daily responsibility for the care and maintenance of a herd or flock of animals, working effectively either in a team or independently

MIKE SUAREZ

Certification news

PIGS & POULTRY: BALANCED FEED

How to ensure pig and poultry feed meets your animals' needs by Tim Holmes

Animal Welfare Approved standard 6.0.2 says farmers and ranchers must put in place a feeding plan that guarantees a varied, wholesome, well-balanced and age-appropriate nutritional regime for their animals. We know this standard can cause issues, particularly for pig and poultry farmers who are feeding a non-traditional diet. Let's find out why.

Home-blended feed

Many farmers feed a mix of products, such as waste bread, vegetables, milk or whey or brewers grain, for example. These feeds can offer a fine supplement to a diet; however, they rarely contain enough protein, amino acids and micronutrients to form a suitable diet on their own, and welfare and production issues will arise if these are the only feeds animals receive with pasture.

While the Animal Welfare Approved program has no issue with the use of home blended feed, the burden of proof rests with the farmer to ensure the feed has been balanced to meet the animal's needs and is suitable for all classes and ages of animals being fed. If you are raising pigs or poultry, here are two questions you should ask yourself:

First, do you feed a commercially produced, balanced ration or a ration mixed on farm formulated by a nutritionist or other feed expert? If yes, you simply need to make your feeding plan available for audit, along with a list of ingredients or sample tear tags from all feed used on farm.

Second, if you feed a ration mixed on farm that you formulated yourself, can you provide information on inclusion rates of different ingredients (and any variation that may occur through the year) and an email or letter from a nutritionist or other suitably qualified person to verify the ration is balanced and meets the needs of the classes of animals being fed? If you cannot answer "yes," you will need to either change the ration or provide the information required.

When pasture is not enough

Pasture alone cannot—and *must* not—make up the total ration for pigs and poultry. These animals are monogastrics, not ruminants, and do not have the digestive microorganisms necessary to obtain all their nutrients from pasture alone.

While some studies show that pasture can make up to 25 percent of the diet of poultry, the majority of nutritional content is actually coming from insects and seeds that may be only seasonally found on pasture or range. Similarly, while well-managed pasture and forage crops can provide the majority of the maintenance diet for gestating sows, pasture and forgage will only supply around 10 percent of the nutritional needs of growing pigs.

What's more, the feed value of pasture is dependent on a number of highly variable factors, such as plant species, area available for grazing, age and height of plants being grazed, climate and time of year, age and type of animal grazing the pasture, and the overall health of the pastures—to name a few. Factor in, too, that the actions of both pigs and poultry tends to degrade or denude pastures, making them a less valuable part of the diet overtime, and it is clear the feed value of pastures for both pigs and poultry is constantly changing.

From a welfare and productivity perspective, it is therefore vital for pig and poultry farmers to supply a well-balanced ration as the main source of the animal's nutritional requirements. While pig and poultry farmers should always try to maximize the utilization and improve the feed value of pasture or range, it should only ever be regarded as a small—albeit important—part of the overall monogastric diet.

Tim Holmes is Animal Welfare Approved's Director of Compliance

Meet the farmer

DUTCH COURAGE

Jan and Rinske de Jong raise Animal Welfare Approved dairy cattle at Working Cows Dairy in Slocomb, Alabama. After moving to America from Holland in 1985, and settling in the Southeast, they leased 55 cows with $5,000 they had saved and Working Cows Dairy was born.

Tell us about your farm ...
We came to America in 1985 with a dream of establishing our own dairy. We rented land and built up the herd, eventually milking over 700 cows. But we were always pushing and expanding, and that wasn't why we came to America. We originally wanted a small dairy farm with our family and to take care of animals. So, in 2006, we decided to go organic and raise our cows outdoors on pasture, gaining AWA certification in 2014. We now farm 650 acres, all certified organic, and raise around 160 cows and followers, with Jersey Guernsey cross, Holstein Jersey cross and more—a bit of everything! It works well for us.

Describe a typical day ...
We start at 5 a.m., checking dry cows and making sure there are no problems with calving, before we get the milking cows to the barn. We keep our cows in big social groups and leave calves with the momma for at least 10–12 weeks—sometimes longer if we don't need milk to sell. Because we milk in a rotary barn it goes pretty quickly, and breakfast is usually around 8 a.m. After that, it's paperwork and office work, alongside the normal seasonal tasks around the farm. Our sons (ages 26, 27 and 28) and their families are taking over some parts of the business, and we're teaching them along the way.

Who are your customers?
We process dairy products on the farm, using low-temperature pasteurization, and do not homogenize, so the cream sits on the top. We sell to Whole Foods Markets in the Southeast, Piggly Wiggly and Western Supermarkets in Birmingham, and lots more. Plus numerous restaurants and coffee shops in Atlanta, Auburn, Birmingham and Montgomery. See our website!

What's the main benefit of being AWA?
That customers can see we are 'walking the walk.'

What are your business plans for the future?
We want to milk about 320 cows, all grassfed.

Sustainable farming principles: why do they matter?
To have a better life for the animals and for future generations.

How can the market for AWA (or sustainable food) products be improved?
While certain people realize the benefits of high-welfare, sustainable production, some people don't understand that it can mean they have to pay a little more. I know AWA tries hard to reach consumers, but the consumer has to understand if a small business has the same expenses as a big business, the expenses on a family farm are dispersed over a small amount. It's just not that easy to produce good food cheaply.

What is the biggest threat to the sustainable farming movement?
Corporate farms that have all the money in the world.

What is the most important lesson life has taught you?
Our youngest son became sick in 2005, which is probably why we eventually converted to organic and pursued a slower life. We realized our health—and the health of the animals and our environment—is the most important thing.

AT A GLANCE

Farm: Working Cows Dairy, Slocomb, AL
Certification/date: AWA 2014
Size: 650 acres
Altitude: 285 ft
Annual rainfall: 48 inches
Enterprises: 160 dairy cattle; selling a range of AWA dairy products

Find out more at **workingcowsdairy.com** or find them on Facebook

The de Jong family (L to R): Ike, Jonny, Mendy, Jan and Rinske

A GREENER WORLD

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"At a time when the food industry is rife with disinformation, A Greener World represents a beacon of trust and guidance on the road to achieving a healthier, fairer and sustainable food economy."
DAN ROSENTHAL award winning restaurateur and sustainable food advocate

FRONT COVER: MIKE SUAREZ