From the President

Wow does time fly! Back full circle! Great time at the convention and now have to get back to the business at hand. Learning new things that were presented in the classes always challenges me to see what I need to be doing differently. Then the challenge is to incorporate that into a new routine and at the same time keep up with things!

It was wonderful to meet new folks and to know that Guernseys are being talked about and folks showed lots of interest. We are getting there!

So breeding season started a while back and for those of us too busy to be bothered then, we now have to plan and catch up! That’s ok – that means there should be warm weather for the new kids that will be coming.

We had gotten articles to share from some of our members and that was great. Working together is the answer to accomplishing much. So waiting to get either articles or ideas/recommendations from the rest of you! I am looking forward to this next year!

Regards and prayers for a wonderful and blessed Thanksgiving and Christmas!

Gloria

Breeder Profile

MEDLAR MEADOWS – DOUG & LINDSAY DEAN

Our family has had goats for over ten years breeding show quality Nubians and later adding Guernseys. My sister also has her pet project of a few Nigerian Dwarves and we additionally raise Spanish Mastiffs as our livestock guardian dogs at Senora de Pilar Spanish Mastiffs. Our interest in the Guernsey Breed began long before we even purchased our first Guernsey additions to our herd. My Dad has been a long time lover of rare breeds of animals which made our
interest in the Guernsey ideal and after much thought into the matter, we got down to serious research into this intriguing breed. As we further researched the Breed we were astonished to find not only was the rarity of the breed appealing but also their hardiness and perfect fitness for the small homestead. Consequently, we soon found ourselves with two bred Guernsey does which were the foundation of our Guernsey herd. Thus we embarked upon a new adventure with the Guernsey goats. (However, we still owned our Nubians who were and always will be our first love and our start into the "goat world.") We soon learned and were elated to ascertain that Guernsey's food to milk conversion was superior to that of our Nubians on pasture. Hence, we realized that Guernseys fit right into our Medlar Meadows philosophy. Medlars are an obscure medieval fruit that is rarely grown in our modern era. To explain, these unique fruits are not suited to the commercial template of "instant gratification", the motto of today's markets, as these fruits entail patience and perseverance. When medlars are first picked they are a rock-solid consistancy and are brown, however, over a time span of a couple weeks in a warm temperature they soften and develop an exquisite taste. Therefore, they represent a former era where values ran deep not superficial and thus, these fruits are very similar to the Guernsey goat. Both require patience, perseverance, and time to reach their full potential as the Guernseys have much work to be done in the breed. That coupled with the fact that the Guernsey goat is like the medlar a very unique as well both have instilled the values of hard labor to reach a worthwhile goal. Thus, the Medlar fruit bears an uncanny similarity to the Guernsey breed and is truly a mascot for our Medlar Meadows Farm as it keeps alive the values of hard work and perseverance that make all the more gratifying the fruits of our labor which are all too easily forgotten in today's "instant" world. We cannot express enough gratitude to Teresa Casselman for selling us our two StumpHollo does which began our herd, to PoppyPatch for getting us started with our first Guernsey buck, and to SouthWind Farms for selling us a purebred Golden Guernsey buck. Also, we would like to thank Gloria Whitmoyer Andrews of Songlo Guernseys for our most recent addition, a handsome polled BG buck. (We are so excited to see his first kids this spring!) All our Guernseys have been wonderful additions to our herd at Medlar Meadows and we are so happy to have these gorgeous animals. For further information on our animals please check out our website at www.medlarmeadows.com ~Elena Dean

ADGA ANNUAL MEETING & CONVENTION 2019

2019 ADGA Annual Meeting & Convention ♦ The Riverside Hotel, Boise ID ♦ Oct. 15- ... Phone: 828-286-3801; Email:adga@adga.org; Website: www.adga.org ...

Oct 15, 2019 - Oct 20, 2019

The Riverside Hotel, Boise ID, Boise, ID, United ...
Lice: What They Are and How to Control Them

Animal Science Facts

**Lice** are a common group of ectoparasitic insects of goats. Generally goat lice are host specific and only attack goats and their close relatives, such as sheep. There are five species of goat louse that fall into two categories based on feeding habits. The **sucking lice** feed by piercing the skin with tiny needle like mouthparts to take blood directly from the capillaries. The **chewing lice** (also known as **biting lice**) have large robust mouthparts designed to scrape and abrade the skin and hair. Chewing lice consume tiny bits of skin, skin secretions and hair for food. The feeding habits and activity of these insects result in discomfort and irritation to the animal. Infested animals often cause structural damage to farm facilities by rubbing and scratching on fences and posts resulting in hair loss, skin damage, wounds and secondary infections. Parasites cause animals to have an unthrifty appearance, poor feed conversion, and reduced weight gains and milk production.

**Louse life cycle**: Both sucking and chewing lice undergo simple metamorphosis. Except for the egg (nit) each life stage resembles the adult in appearance. The female louse attaches an egg to the hair near the skin. The egg hatches in about 7-10 days. There are three nymphal stages each about 5-10 days in length, followed by the adult. Adult lice may live several weeks. Infestations are most severe in the winter months and when animals are under stress.

**Sucking Lice**

Two species of sucking louse infest goats in the United States.

**The African blue louse**: *Linognathus africanus* was originally described from Nigeria but has spread to the United States, Australia, Europe and Asia. The African blue louse measures about 2 mm in length and has a distinct bluish color indicative of sucking lice ([Figure 1](#)). The female louse attaches a single egg to one or more hairs. The latter results in a matted appearance of the hair coat. This species is unique in that it occasionally infests animals other than goats including cattle, deer, dogs and turkeys. Severe infestations may result in hair loss, anemia or death in some instances. Although *L. africanus* can infest any part of the body, closely examine the neck, base of the ears, poll, and jaw for infestations.

**Goat sucking louse**: *Linognathus stenopsis* is often misidentified because of its similar appearance to the African blue louse. The goat sucking louse is found in temperate regions worldwide. The complete life history has not been studied. Severe infestations result in dermatitis and anemia. Goat sucking lice may be found on the back and legs.

*Figure 1. African blue louse, Linognathus africanus.*

Rabinder Kumar and Jack Lloyd, University of Wyoming, Laramie
Chewing Lice

Three species of these straw colored chewing lice infest goats.

**Goat biting louse:** *Bovicola caprae* (Figure 2). Eggs are deposited on hairs close to the skin and hatch in 7-10 days. Nymphs may disperse about the body feeding on skin debris. The entire life cycle requires about 36 days. *B. caprae* are most often found on short haired goats. However, occasional infestations of Angora goats occur. *B. caprae* are most abundant in the winter months.

**Angora goat biting louse:** *Bovicola limbatus* is often mistaken for the goat biting louse. This species is found anywhere Angora goats are raised. In the United States, meat goats pastured with Angora goats will become infested. The female louse lives about 18 days, during which she deposits about 1 egg per day on a single hair. The egg to egg life cycle is approximately 32 days.

**Hairy goat louse:** *Bovicola crassipes* is a large (2.2 mm) yellow louse easily identified by the abundance of hairs on its body. The hairy goat louse prefers long haired goats and is found anywhere Angora goats are raised. Eggs are attached to 2-3 hairs resulting in a matted unsightly appearance of infested animals. The life cycle from egg to egg is approximately 36 days.

![Figure 2. The goat biting louse, Bovicola caprae. Ventral view of female.](image)


**Losses**

Louse infested animals may be recognized by their dull, matted hair coat or excessive scratching and grooming behavior. Weight loss may occur as a result of nervousness and improper nutrition and blood loss to sucking lice may lead to anemia or death.

Lice are obligate external parasites that spend their entire lives on the animal. Lice are generally transmitted from one animal to another by contact. Dislodged adult lice may survive a few days, long enough to acquire a new host. Lice populations vary seasonally, depending largely on the condition of the host. Most sucking and biting lice begin to increase in number during the fall and reach peak populations in late winter or early spring. Animals under stress will usually support larger louse populations than normally found. Control of lice infestations is needed whenever an animal scratches or rubs to excess.

Diagnosis is by physical examination of animals for crawling lice and eggs attached to the hairs, or of material collected by plucking or combing.
Satisfactory louse control requires two applications at 10- to 14-day intervals to remove young lice emerging from the protective egg case. Replacement animals should be quarantined and treated twice before being introduced to the herd.

Anthelmintics such as Ivermectin and Moxidectin are effective against **sucking lice**. **Note:** *Ivermectin and Moxidectin products are not labeled for goats.*

Registered products for both **sucking** and **chewing lice** are residual sprays or pour-on products. Several different products are available for louse control. Use pesticides according to label directions to avoid contamination of milk, meat or the environment.

**Caution:** Young kids are especially sensitive to over-dosing.

<table>
<thead>
<tr>
<th>Insecticide</th>
<th>Formulation</th>
<th>% Active Ingredient</th>
<th>Signal Word</th>
<th>Pests</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Permethrin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Atroban 11% EC Insecticide</td>
<td>Emulsifiable Concentrate</td>
<td>11%</td>
<td>Caution</td>
<td>black flies, eye gnats, horn fl</td>
</tr>
<tr>
<td>Schering Plough</td>
<td></td>
<td></td>
<td></td>
<td>house flies, lice, mange mite</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>scabies mites, sheep keds, st</td>
</tr>
<tr>
<td>Catron IV</td>
<td>Aerosol</td>
<td>5%</td>
<td>Caution</td>
<td>deer flies, fleece worms, horn horse flies, house flies, gnats</td>
</tr>
<tr>
<td>Boeringer</td>
<td></td>
<td></td>
<td></td>
<td>ear ticks, screwworms</td>
</tr>
<tr>
<td>Ingleheim</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Durvet 10% Permethrin</td>
<td>Emulsifiable Concentrate</td>
<td>10%</td>
<td>Caution</td>
<td>face flies, horn flies, stable fl</td>
</tr>
<tr>
<td>Durvet, Inc.</td>
<td></td>
<td></td>
<td></td>
<td>lice, mites, ticks</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GardStar 40% EC</td>
<td>Emulsifiable Concentrate</td>
<td>40%</td>
<td>Danger</td>
<td>black flies, deer flies, eye gn horse flies, house flies, lice,</td>
</tr>
<tr>
<td>Y-Tex</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Martins 10% Permethrin</td>
<td>Emulsifiable Concentrate</td>
<td>10%</td>
<td>Caution</td>
<td>face flies, horn flies, stable flies, mosquitos, lice</td>
</tr>
<tr>
<td>Control Solutions, Inc.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Safe Pesticide Use:

1. Read the label before using any pesticide, pay attention to all warnings and precautions.
2. Store all pesticides in their original containers, away from food, feed and water.
3. Keep all pesticides out of the reach of children, pets and livestock.
4. Apply pesticides only as directed by the label.
5. Dispose of empty containers promptly and safely.

References


Authors

Wes Watson
Associate Head, Professor and Extension Specialist (Livestock & Poultry)
Entomology and Plant Pathology

JM Luginbuhl
Extension Specialist (Goats & Forage Systems)
Crop and Soil Sciences

Publication date: Oct. 1, 2015

North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, veteran status or disability. In addition, the two Universities welcome all persons without regard to sexual orientation.
FAILURE TO THRIVE

There is nothing cuter than a newborn baby lamb or kid, and many small ruminant producers get their first sheep or goat as a neonate and have no idea how to care for it. The new owner may not ask the seller if the lamb or kid received colostrum, whether the dam was vaccinated for CDT or what and how often the neonate is eating. Instead, they bring the little soft and fluffy neonate home and are unprepared with either appropriate food or devices to feed it. Newborn lambs and kids are poikilotherms that quickly take on the temperature of their environment. Once they utilize their neonatal brown fat, they rapidly become hypothermic and hypoglycemic and will succumb quickly without prompt treatment. While some veterinarians advise stomach tubing limp little babies with warm milk or colostrum, warming the neonate quickly in an incubator, clothes dryer full of hot towels or on a heating pad before feeding it will allow better digestion and absorption of nutrients. Once the neonate is warm, it will readily suckle colostrum or milk from the dam or a bottle equipped with a Pritchard Teat or flexible latex lamb nipple. Most lambs and kids will consume an ounce per pound body weight of very warm (102 degrees F) heat-treated colostrum or milk and thrive when fed three times daily from birth. While many sources advocate feeding neonates more frequently, it takes six hours to completely digest milk and newborns fed less frequently exhibit fewer cases of digestive upset or diarrhea. Heat-treating colostrum to 135 degrees F and maintaining it at that temperature with periodic agitation for one hour will prevent transmission of several infectious diseases that might be present in the adult herd such as caprine arthritis-encephalitis, ovine progressive pneumonia, caseous lymphadenitis, mycoplasma, Staphylococcal
mastitis, or Johnes disease. Heattreated colostrum can be frozen for future use in either ice cube trays or in packets sized for one feeding. If the lamb or kid is to be hand-raised, feeding Pasteurized milk or milk replacer three times daily for eight weeks along with free-choice access to hay and grain allows the ruminant digestive tract to grow and develop. Commercial sheep and goat dairies often wean young stock as early as eight weeks of age. However, young stock transitioned more slowly by feeding milk or milk replacer twice daily from eight to twelve weeks of age, are larger as adults and more productive at one year of age.

NEONATAL CONTRACTED TENDONS AND FRACTURES

Contracted tendons and joints that bend the wrong direction are not uncommon in newborn lambs and kids and respond well to benign neglect. While it is tempting to apply splints to correct contracted tendons in neonates, most newborns self-correct quite rapidly if placed in an environment that allows them to push their feet against a rough surface so that they can stand and exercise their limbs. Putting the neonate in a cardboard box that is slightly wider than its body and the same length as its chest to tail allows the newborn to push against the corners of the box to stand. Most nursing dams tolerate having their offspring in a box where they can see them for a few hours each day, and most affected lambs and kids will self-correct by a few days of age. The stifles and hocks on kids and lambs from large litters often bend the wrong direction at birth, and it is speculated that the lax tendons and ligaments in joints result from lack of movement in the over-crowded pregnant abdomen. When neonates are dam-raised, confinement of the dam and neonates to a small pen allows the neonates to exercise while remaining near the dam for nursing. Bottle-raised offspring can be housed in a small box as described above for a few days until the tendons and ligaments tighten and the animal walks normally. Occasionally dams step on neonates and bad goat babies jump from ridiculous heights so long bone fractures are not uncommon in either species. Plastic mason metasplints or wooden paint stirrers padded with roll cotton and applied with roll stretch gauze and waterproof tape make excellent splints for neonates. A strip of Duct Tape at the top and bottom of the splint will help prevent premature removal of the splint, and the splint should be changed every two weeks as the young stock grows. PCV pipe cut in half longitudinally can be used for larger lambs and kids, and most simple fractures will heal within four weeks with one splint change.
When allowing producers to change the splint, teach them how to apply gauze and tape correctly to avoid creating a
tourniquet effect, and remind them that the cast or splint must be changed immediately if it gets wet.

ENTEROTOXEMIA

The most common cause of unnatural death in sheep and goats of all ages is probably enterotoxemia caused by toxin
production from the bacteria Clostridium perfringens types C & D, which are considered part of the normal intestinal
flora. Experienced small ruminant producers vaccinate pregnant females thirty days prior to parturition to protect
both the does and the neonates who consume high levels of protective antibodies present in colostrum. Breeding
males should be vaccinated annually thirty days prior to introduction into the female population, and non-
reproducing sheep and goats should be vaccinated at least annually. Many small ruminant veterinarians recommend
vaccinating against enterotoxemia twice yearly due concern that antibodies against these bacteria may only last four
to six months. Not all CDT vaccines are created equal, so choose a product licensed and labeled for use in sheep and
goats, and follow manufacturer recommendations for dose, location for administration and frequency of use. Clinical
symptoms of enterotoxemia vary greatly but are often described as peracute, acute and chronic depending on how
rapidly symptoms develop. Animals with the peracute form may be found dead or may exhibit sudden loss of
appetite, severe depression, abdominal distension, vocalization, weakness, recumbency, coma and death. Neonates
may demonstrate subnormal temperature, rapid pulse, injected sclera, a cold clammy mouth and lateral recumbency
within a day or two of birth and die within a few hours. Older sheep and goats that become acutely ill develop
symptoms more slowly, may exhibit diarrhea with associated dehydration and acidosis, and often have a history of
feed changes or environmental stress. Occasionally, adult animals in herds that have a history of peracute or acute
cases exhibit a more chronic form characterized by repeated bouts of inappetence, listlessness, and pasty feces with
decreased milk production if lactating. Diagnosis of enterotoxemia is based on history, recognition of classic clinical
symptoms and response to treatment. Currently, no antemortem tests exist to confirm the diagnosis in live animals
so most animals are treated based on clinical signs. Antibiotics such as intramuscular procaine penicillin G at 10,000-
izu/lb body weight once daily kill the bacteria and stop production of gas and toxin. Commercially available Clostridium
perfringens type C and D antitoxin may be administered intravenously in peracute cases or subcutaneously in acute
or chronic cases with a loading dose of twenty ml that may be repeated every four to six hours until the animal
stabilizes. Administration of non-steroidal antiinflammatory drugs such as flunixin meglumine at 1cc/50lbs is recommended to counteract the toxins as well as relieve the intense pain associated with gaseous distension of the intestinal tract. Animals that fail to respond to therapy should be necropsied to confirm the diagnosis and other animals housed in the same environment should be revaccinated when enterotoxemia occurs. Because enterotoxemia often follows over-nutrition errors such as sudden access to excessive milk, grain or fresh cut roughage, management practices should be corrected to prevent future losses.

**MASTITIS**

Whole sessions have been dedicated to the diagnosis, treatment, prevention and control of mastitis in sheep and goats but there are a few comments worth presenting here. The incidence of mastitis is higher in dams nursing offspring than in females whose offspring are separated from the adult population at birth and are fed mechanically. The mammary glands of females nursing their offspring should be examined shortly after birth to make sure that the offspring are nursing both udder halves and examination should be repeated any time that the dam or offspring exhibit abnormal behavior. Nursing offspring who are consuming adequate milk are quiet, calm and playful. Lambs and kids that are hungry due to inability of the dam to provide enough milk are agitated, vocal and unable to rest. Females consuming diets low in protein, energy and calcium and those that lack access to clean water will not produce adequate milk to feed their offspring. The mammary glands of females nursing their offspring should be checked for signs of mastitis at weaning so that they can be treated promptly prior to cessation of lactation. Mastitis may present as acute, peracute, chronic or subclinical disease and the prognosis for recovery depends on early detection of disease, identification of causative agent, availability of efficacious therapy and good nursing care. Coagulase negative Staphylococcus species are a significant cause of subclinical mastitis in goats, and many laboratories do not report these bacteria as a cause of mastitis. Routine screening with the California Mastitis Test may lead to early detection of subclinical cases, and selection of appropriate antibiotics should be based on culture and sensitivity. Administration of appropriate pain relief, frequent milk removal and appropriate nutrition and nursing care lead to a very high success rate for treatment when mastitis is diagnosed early in the course of disease. Early treatment of mastitis decreases transmission between pen mates, prevents fibrosis of mammary tissue leading to lower milk production and improves milk quality. Few pharmaceuticals are licensed or labeled for use in sheep or
goats and current Food Animal Residue Avoidance Databank withdrawal interval recommendations for extra label use are often considerably longer than the label recommendations for cattle. Milk and urine from treated sheep and goats should be tested for antibiotic residue before milk, milk products or meat from treated animals is used for human consumption.

PERACUTE MANNHEIMIA PNEUMONIA

Sudden, but subtle onset of anorexia, rapid respiration, and fever of 105-106 degrees F with high mortality rate is not uncommon in the transitional months of fall and spring when there is a wide swing in extremes of daily environmental temperature between day and night. Young stock and stressed males are particularly susceptible to peracute pneumonia due to Mannheimia haemolytica and the length of time between the observation of ill health and death may only be a matter of a few hours. There are no efficacious vaccines in this country to protect sheep and goats against any species of Mannheimia, and failure of protection through anecdotal use of available bovine vaccines by producers and veterinarians support this statement. Clients should be encouraged to monitor feed intake, activity level and respiratory rates in breeding males and young stock, and they should seek veterinary assistance in affected animals as soon as the first symptoms appear. Aggressive therapy with ceftiofur administered once daily intramuscularly at the label dose of 1mg/lb for five to seven days combined with administration of flunixin meglumine at 1mg/lb has been successful in treating peracute pneumonia when recognized early in the course of the disease. Early recognition, stress reduction and good nursing care are necessary for successful treatment of pneumonia.

TETANUS

Tetanus is caused by introduction of the ubiquitous spore-forming gram-negative bacteria Clostridium tetani deep into soft tissue where anaerobic conditions allow proliferation of a potent neurotoxin. While the bacteria remain at the site of original introduction, the toxin moves up nerve trunks to the spinal cord where it blocks the inhibitory effects of the alpha motor neurons. Tetanic spasms result from sustained discharge of the motor neurons. Once in the spinal cord, toxin cannot be neutralized by anti-toxin and slowly degrades over time. Death results from respiratory failure due to tetanic spasms of the diaphragm. C. tetani may be introduced through routine neonatal
procedures such as dehorning, disbudding, tattooing, castration and tail docking as well as vaccination, hoof-trimming, dog bites, dystocia and shearing in adults. Sheep and goats sharing facilities with horses may be at higher risk for tetanus. The incubation period may be quite variable and range from a few days to several months. While early symptoms include stiffness and altered gait, the disease is progressive and the affected animal may change from standing in a sawhorse stance to recumbency with erect ears, retracted lips and third eyelid prolapse. If muscles in the pharynx and larynx are affected, the animal may not be able to swallow and may salivate, regurgitate, bloat and aspirate fluids into the lungs causing pneumonia. Loud noises, bright lights or other stimuli may cause tetanic spasms. Death often results from respiratory failure. Diagnosis of tetanus is based on classic clinical symptoms, and the prognosis for treatment depends on early intervention. Procaine penicillin G is administered twice daily at 10,000 iu/lb intramuscularly for the first two to three days and then once daily to kill the bacteria and prevent further toxin production. Intravenous administration of 10,000 iu antitoxin every 12 hours for the first 24 hours may neutralize toxin not already in the spinal cord. Diazepam may be administered at 0.2 to 0.7 mg/lb intravenously or acepromazine at 0.1 mg/lb may be used as an anticonvulsant or tranquilizer. Good nursing care includes keeping the animal in a quiet, warm, dark location away from stimuli. Intravenous fluids containing dextrose and electrolytes are indicated to combat dehydration due to inability to swallow. Ground feed and water may be administered by nasogastric tube, and the patient’s position should be rotated frequently to prevent ulcers. All sheep and goats should receive an initial dose of combined Clostridium perfringens types C & D and Clostridium tetani vaccine as part of the routine disease control program. Pregnant females should be vaccinated 30 days prior to parturition, and breeding males should be vaccinated 30 days prior to the onset of breeding season. Young stock receiving colostrum from vaccinated dams should receive their first vaccination at one month of age followed by booster vaccinations at two and three months of age. Non-breeding animals should receive a minimum of one vaccination per year, and consideration of vaccination twice yearly may be indicated due to the short life span of these antibodies. With their extensive background in nutrition, management, herd health and disease prevention, veterinarians are extremely well qualified to assist sheep and goat producers with sudden health emergencies as well as educating them about better livestock production practices, nutrition and disease control.
ADGA Recognition. What’s Next?
The Guernsey breed was recognized by the American Dairy Goat Association at the 2015 ADGA Convention. At the
time the ADGA Board of Directors anticipated that the breed herd book would be created by the end of 2017 once
the new computer system was released. Due to failures on the part of ADGA’s programmer (who has since been
terminated as an ADGA employee), the computer system has not yet been completed. GGBOA Secretary, Sara
Dzimianski sits on the ADGA Information Management Committee that is currently overseeing the development of
ADGA-Next Generation. The ADGA-NG project began following the 2017 Convention when, at the recommendation of
the IM Committee, the ADGA Board of Directors recognized that ADGA needed a new approach to developing an
information management system. The ADGA BOD appropriated approximately $500K to building a new system from
the ground up using the latest in information technology. Since then, considerable progress has been made, and the
new system is slated to be delivered to ADGA at the end of 2019.

ADGA-NG will incorporate the Guernsey herd book in its design, and also utilize rules that will facilitate the easier
development of future new herd books. The data currently housed in the GGBOA database will be delivered to ADGA
for the development of this herd book. This does not mean that Guernseys in the GGBOA database will be
automatically registered with ADGA, but it will provide ADGA with a database for cross referencing Guernseys as they
are registered by members. Through the GGBOA database, ADGA will have a record that traces all GGBOA-recorded
Guernseys back to the original embryo and semen imports that is formatted to be uploaded directly into the ADGA
database.

Once the herd book is established, Guernsey owners will be responsible for registering all currently living Guernseys
with ADGA. If ancestors of currently-living Guernseys have not be registered with the British Goat Society, those
ancestors will need to be registered with ADGA before the living offspring may be registered. Registration of
Guernseys with ADGA is anticipated to begin in January 2020. Once Guernseys are registered with ADGA they will be
eligible to compete in ADGA shows, and participate in Linear Appraisal.
<table>
<thead>
<tr>
<th>Disease</th>
<th>Disease</th>
<th>Disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>BARBERPOLE</td>
<td>BRUCELLOSIS</td>
<td>CAE</td>
</tr>
<tr>
<td>CASEOUSLYMPHADENITIS</td>
<td>COCCIDIOSIS</td>
<td>ENTERTOXEMIA</td>
</tr>
<tr>
<td>FOOTROT</td>
<td>JOHNE</td>
<td>LISTERIOSIS</td>
</tr>
<tr>
<td>MASTITIS</td>
<td>MENINGEALWORM</td>
<td>MONEZIA</td>
</tr>
<tr>
<td>MYCOPLASMA</td>
<td>PNEUMONIA</td>
<td>QFEVER</td>
</tr>
<tr>
<td>SDISEASE</td>
<td>SOREMOUTH</td>
<td>TETANUS</td>
</tr>
<tr>
<td>TUBERCULOSIS</td>
<td>URINARYCALCULI</td>
<td></td>
</tr>
</tbody>
</table>