LANA News

Llama Association of North America

Fall Edition 2026



LANA NEWS

Fall 2026









3 LANA Business Office

3 LANA Board of Director

3 LANA's Mission Statement

5 Calendar of Events

6 What's Happening in LANA

18 Youth Award of Excellence Winner

40 GALA Conference

42 LANA Youth Writing & Essay Contest

47 LANA's Hobo Classic Show

48 Friends of LANA Sponsors

52 Minimum Standards of Care

53 LANA's Emergency Wallet Card

54 LANA's Membership Information



ON THE COVER
The McFarland Family, Happy Homestead Llamas

Featured Articles

7 **Why Llamas?**
The Story Behind Happy Homestead Llamas

19 **New World Screwworms**
A Devastating Parasite

37 **Great American River Clean-Up**
LANA and Friends and Community Service

41 **Patience, A True Virtue**
Training With Patience

43 **Hypothermia**
Care and Management During Winter

LANA BUSINESS OFFICE

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Please contact the LANA Business Office for Member Services, Advertisements, Event Calendar updates, and any llama-, alpaca-, or LANA-related questions you may have.

Visit LANA at: www.lanainfo.org
Instagram @llamaassocationofnorthamerica
Facebook: Llama Association of North America

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THANK YOU for CONTRIBUTING

Thank you to the following for their contribution to this newsletter:

Dr. David Anderson, Virginia Christensen, Dr. Lisa Edwards, Florida Alpaca Llama Association, Steven McFarland, Stephanie Pedroni, Susan Rich, Cali Roberson, and Dr. Marcela Valdes Soto

Editor's Message:

In this issue:

Enjoy the engaging article penned by LANA member Steven McFarland of Happy Homestead Llamas in Magalia, California. The article narrates his and his family's inspiring journey, detailing how they embarked on their llama-raising adventure and the establishment of Happy Homestead Llamas.

LANA thanks the Florida Alpaca and Llama Association Newsletter for granting permission to reprint a presentation from their recent FALA Educational seminar on New World Screwworms. Please take some time to read the crucial information provided in the presentation.

Board member Cali Roberson attended the Great American River Clean-Up day in Sacramento, California. Check out her article about the day on the river, where they did some great work for the community, and how they wrapped up the day introducing the llamas to the clean-up participants.

A previously published article by Dr. David Anderson titled "Hypothermia" is an oldie, but goodie. There's important information to take into consideration with the upcoming change in weather.

A quick read and another golden oldie from the archives: "Patience, a True Virtue" by Virginia Christensen, which was published in the *LANA News* when she was the editor. She offered her insightful observations on training.

Time to get your pumpkin recipes out.
Happy Fall, y'all.

Kathy

From the President

A friendly reminder that there are upcoming deadlines. The LANA's Youth Writing & Art Contest is on November 1st. Additionally, members interested in running for the LANA Board of Directors should submit their candidate's statement by December 1st to lanaquestions@gmail.com.

On the agenda for our upcoming Board of Directors meeting, Research Liaison Stephanie Pedroni will present the research project proposals selected by the Alpaca Research Foundation. LANA has entered a new chapter of research support since our departure from the Morris Animal Foundation, and we are now reaching the point where we can be responsibly funding research again. Thank you, Stephanie, for your dedication to representing LANA on the ARF board and the North West Camelid Foundation. We will keep you updated on the progress.

Have you noticed the abundance of holiday items in the stores already? As the holidays approach, if you're struggling to find the perfect gift for your camelid friends, consider gifting them a LANA membership. It's also an excellent gift for new llama owners, and new memberships are a special reduced price. Plus, you're supporting an organization that's celebrating its 45th Anniversary.

Kathy

LANA BOARD OF DIRECTORS

Kathy Nichols
President, Newsletter Editor

Stephanie Pedroni
Vice President, Research

Joy Pedroni
Treasurer, Office, Webmaster

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Secretary, Youth Co-Chair

Eileen Ditsler
Director

Margaret Drew
Director

Emily Muirhead
Director

Cali Roberson
Director, Youth Co-Chair

Cathy Spalding
Advisory Chair

You may contact any of the directors at lanaquestions@gmail.com

Mission Statement:

Established in 1981, the Llama Association of North America (LANA), serves the camelid community by sponsoring medical research specific to llamas and alpacas; providing current and accurate information about camelid health and care; advocating for pro-camelid legislation and access to public lands; encouraging, educating and mentoring camelid enthusiasts of all ages in their interactions with camelids; supporting rescue for camelids in distress; and hosting a variety of activities including youth programs, hiking trips, shows, parades, fiber clinics, educational events and more.

Calendar of Events

Bold type denotes LANA sponsored events
*(asterisk) denotes discount for FOL Sponsors and LANA members

2KC INVITATIONAL LLAMA SHOW
ALSA SOUTHEAST REGIONAL
October 16 - 18, 2026
Georgia National Fairgrounds
Perry, Georgia
contact: llamajudge@gmail.com
contact: kdevaul2@gmail.com

THE LEGEND LLAMA SHOW
October 16 - 18, 2026
Erie County Fair
Wattsburg, Pennsylvania
contact: ilovemykids8243@aol.com

GALA EDUCATIONAL CONFERENCE
October 22 - 25, 2026
Hilton in Scranton
Scantron, Pennsylvania
contact: dwr3rr@gmail.com
galaonline.com

GOLD COUNTRY GATHERING ALPACA SHOW
CALIFORNIA CLASSIC ALPACA SHOW
October 23 - 25, 2026
Glenn County Fairgrounds
Orland, California
calpacaevents.com

SOUTHWEST CAMEL CONFERENCE AND TRAINING CLINIC
October 23 - 25, 2026
Sandy Valley Ranch
Sandy Valley, Nevada
https://sandyvalleyranchnv.com

OREGON FLOCK AND FIBER FESTIVAL
October 30 - November 1, 2026
Linn County Expo Center
Albany, Oregon
oregonflockandfiberfestival.com

LANA'S YOUTH WRITING & ART CONTEST
Deadline November 1, 2026
www.lanainfo.org

WINTER WONDERLAND LLAMA SHOW 1 & 2
November 20 - 22, 2026
Willow Tree Farms Event Venue
Ringgold, Georgia
contact: llamajudge@gmail.com

FALA WINTER CLASSIC SHOW
January 16 - 17, 2027
Haley Stables
Lady Lake, Florida
www.falainc.com

LANA'S 18TH ANNUAL HOBO CLASSIC
February 5 - 7, 2027
Diamond Bar Arena
Ceres, California
lanainfo.org

FLORIDA STATE FAIR
February 11 - 14, 2027
Tampa, Florida
www.falainc.com

MWLA CONFERENCE
February 19 - 20, 2027
Express Suites Riverport Conference & Event Center
Winona, Minnesota
www.mwla.force.com

RIVERSIDE COUNTY FAIR & NATIONAL DATE FESTIVAL LLAMA SHOW (ILR & ALSA)
February 27 - 28, 2027
Riverside County Fairgrounds
Indio, California
datefest.org
contact: labendeira@yahoo.com

IMAGINOLOGY
April 10 - 11, 2027
Orange County Fairgrounds
Costa Mesa, California
www.ocfair.com
contact: labendeira@yahoo.com

IOWA LLAMA JACKPOT
June 12 - 13, 2027
Linn County Fairgrounds
Central City, Iowa
https://iowallamajackpot.com

ORANGE COUNTY LLAMA SHOW
July 17 - 18, 2027
Orange County Fairgrounds
Costa Mesa, California
www.ocfair.com
contact: labendeira@yahoo.com

ALSA WESTERN REGIONALS
October 9 - 11, 2027
Antelope Valley Fairgrounds
Lancaster, California
contact: labendeira@yahoo.com

What's Happening in LANA



LANA supports the

ALSA Western Regional Show

LANA was proud to be a sponsor at the recent ALSA Western Regional Show in Lancaster, California. The Board of Directors agreed to sponsor the Showmanship Division (Adult, Senior, Intermediate, Junior and Special Needs classes). Congratulations to all the class winners! There were many LANA members exhibiting at the show. Kudos to Lisa Labendeira and Patti Oxenham for organizing and running such a successful and well-attended show.

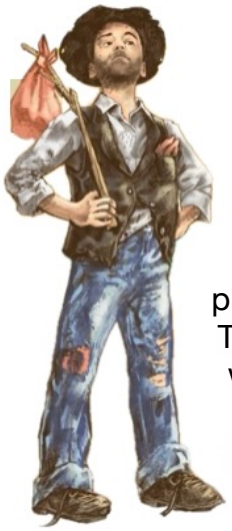
LANA working with the

Kids Cancer Connection

Kids Cancer Connection is an organization that provides free psychosocial services—including temporary housing, therapy, hospital schooling, and community outreach—to families at major California medical centers. They recently reached out to LANA to invite us to collaborate on an "Adopt-a-Llama/Alpaca" project. This project is designed to bring comfort and improve the overall well-being of young cancer patients during their medical treatments. Our Board of Directors whole-heartedly agreed to participate. Look forward to updates.

LANA's 18th Hobo Classic Show

Save the date - February 5 - 7, 2027



Mark your calendars! LANA's 18th Annual Hobo Classic Show is scheduled for February 5-7, 2027. Amanda Wick will be the judge for our ALSA-sanctioned show. We're back at the fabulous Diamond Bar Arena, the perfect venue for our event. The spacious covered arena lets us offer everything under one roof. Weather permitting, the pack classes will take place on an equine obstacle trail course that exhibitors enjoyed last year. The Hobo Village, beautifully set up by the Pedroni Family, will be a welcoming place to visit, browse for auction items, enjoy the hospitality offerings, and of course, gather for our dinner and annual membership meeting on Saturday evening. Check our website later this month for more information.

WHY LLAMAS?

THE STORY BEHIND HAPPY HOMESTEAD LLAMAS

By Steven McFarland

I'm Steven McFarland, and before I tell you about Happy Homestead Llamas, I probably need to explain why we got into llamas in the first place.



The short answer is: I wanted to stop carrying such heavy packs.

The longer answer starts quite a bit earlier.

I grew up packing with horses and mules. After college, I got back into backpacking and hunting and thoroughly enjoyed being outdoors. When you're young, strong, and haven't accumulated too many athletic injuries yet, carrying an 80-pound pack doesn't seem like such a big deal.

Eventually, though, it starts to feel like a very big deal.

I also had the good fortune of hunting and backpacking with my uncle, who had horses. We would pair our hunting trips and backpacking trips with his horses, and I got spoiled. Instead of carrying everything on my back, I could walk into the wilderness with a light daypack while the horses carried the heavy gear.

It was a luxury.

Unfortunately, his horses were aging, and his life was changing. He was moving away from the ranch lifestyle and toward more of a suburban life, so we gradually lost access to the horses.

Around the same time, my wife and I decided we wanted to get our kids into backpacking. We started when they were about four and six years old. If you've ever backpacked with children, you know where this is going.

We were carrying our own gear, their gear, their clothes, their food, and all the extra things you need when taking kids into the wilderness. Kids have a remarkable ability to get completely wrecked outdoors, so you want them to be warm, comfortable, dry, and prepared.

Unfortunately, all that preparation has weight.

Our packs were getting heavier, and the trips were becoming more difficult.

So I started looking for a pack animal.

The Search

Horses were the obvious place to start.

I love horses, and I knew exactly what they could do. But when I started looking at the costs, it quickly became clear that a horse wasn't going to work for our family.

There was the purchase price, veterinary care, feed, hay, fencing, space, and all the other expenses that come with keeping a horse. Living in California, hay alone can become a significant expense.

And then there was the safety aspect.

We wanted something our entire family could be around. I wasn't necessarily looking for an animal that couldn't hurt you, because any large animal can hurt you. I was looking for something that was a little more manageable and family-friendly.

So we considered ponies.

Then goats.

I had seen people packing with goats and thought they were interesting, but they seemed a little too small for what we wanted. They also have, shall we say, strong personalities.

And the males stink.

So that idea didn't last long.

Then I came across Beau Baty and Wilderness Ridge Trail Llamas.

He had a series of YouTube videos called *Llama Life,* and I started watching.

Then I watched another.

Then another.

Before I knew it, I'd spent hours watching videos about llamas.

And I thought, "I think this is the animal."

Llamas appeared to check a lot of the boxes we were looking for. They could carry a useful amount of weight, weren't nearly as expensive or demanding as horses, were relatively clean, seemed family-friendly, and could travel through the wilderness without the same infrastructure requirements as a horse.

But watching videos wasn't enough.

I needed to meet some llamas.



Our first trip with llamas with Greg



Our first llamas

Finding Our First Llamas

I started contacting llama ranches.

And discovered something interesting.

Finding llamas wasn't nearly as easy as I expected.

There were ranches that didn't have animals available. There were calls that weren't returned. There was very little information compared with what you can find when you're shopping for more common livestock.

It felt a little like discovering a secret industry.

Eventually, we connected with Greg Harford of Potato Ranch Llamas.

Greg said, "I've got some llamas. Come on by."

So we made a family trip out of it. We stayed at an Airbnb nearby, visited Greg's ranch, and proceeded to ask him approximately a million questions.

Greg was incredibly generous with his time and knowledge. He let us spend time with his llamas, asked and answered questions, and helped us understand what we were actually getting ourselves into.

Eventually, we decided to buy three young llamas.

There was just one more hurdle.

I had to tell my wife how much they cost.

Fortunately, Greg's ranch was near a cider brewing company literally just down the road.

We walked the llamas down the road, stopped for some cider, and walked back glass in one hand and llama in the other.

My wife looked at me and said, essentially, "Yep. This works."

So, if you're wondering how I convinced my wife to buy llamas, apparently the secret is to walk a young llama down a country road and serve her an alcoholic beverage.

At least it worked for me.

Those three youngsters became the beginning of our llama journey.

The Beginning of Happy Homestead Llamas

At first, we simply wanted llamas for our family.

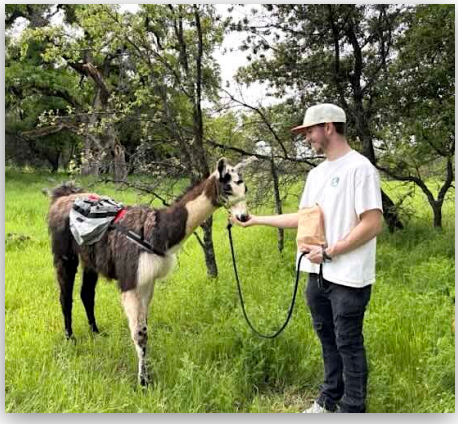
Our first backpacking trips with them were pretty funny. They were too young to carry much weight, so they weren't exactly replacing our backpacks yet.

They carried some lighter gear, but most of our equipment was till on our backs.

On one of those early trips, we brought a hammock.



Normally, I wouldn't have carried a hammock backpacking because I didn't want the extra weight. But with llamas, we figured, "Why not?"



So I'm sitting in this hammock in the wilderness, and I started thinking about what we could do with these animals.

I'd always had an entrepreneurial mindset, and Greg had introduced me to his breeding program and rental operation. We started talking about business ideas.

What if we offered llama walks?

What if we offered rentals?

What if we bred llamas?



What if we could build something that helped pay for the animals we already wanted to own?

Eventually, my wife and I started putting the pieces together.

Happy Homestead Llamas was born.

The name really came from who we are as a family. We are an adventurous family. We love being outdoors. We're generally pretty happy, positive people, and we wanted to share that love of the outdoors and that experience with other people.

Our original vision was a multi-faceted business: llama walks, rentals, and eventually breeding.

And that's more or less what we did.

Six Years of Experimenting



Over the next several years, we tried a lot of things.

We offered llama walks.

We developed a rental operation.

We started building a breeding program.

We bought, trained, sold, and evaluated llamas.

We learned what worked.

We learned what didn't.

And, perhaps most importantly, we learned what we actually wanted Happy Homestead Llamas to become.

The llama walks were enjoyable, but they were difficult to schedule around family, school, sports, and our breeding program.

Rentals were successful in their own way, but they came with their own challenges, risks, and time commitments.

Breeding, however, kept pulling us back.

The more llamas we worked with, the more interested I became in what makes a truly good llama.

Not just a llama with a good pedigree.

Not just a llama that looks good.

Not just a llama that somebody says is a “packer.’

What can that individual llama actually do?

What Makes a Happy Homestead Llama?

Today, our breeding philosophy is built around three primary characteristics.

First: **intelligence**

Second: **a calm, curious temperament.**

Third: **functional conformation suitable for the work we want the animal to perform.**

That order is intentional.

I want a llama that can think, learn, remain calm, and work through new situations.

Conformation matters because an animal that is going to carry a pack needs to be physically capable of doing that work.

But I don’t believe conformation or pedigree tells the whole story.

Every llama is an individual.

Some are exceptionally athletic.

Some are incredibly intelligent.

Some have wonderful temperaments.

Some develop into outstanding packers.

Others don’t.

And that’s okay.

As our llamas mature, we evaluate them carefully. By around one to two years old, we usually have a pretty good idea of where an individual ish headed.



Will it remain in our breeding program?

Will it become one of our pack llamas?

Would it be better suited as a pet?

Would it make a good guardian llama?

Not every llama belongs in every category.

And we've become comfortable with that.

The Llama Has to Prove Itself

One of the most important things we've learned is that we don't want to sell a llama simply because its pedigree looks good.

The llama has to prove itself.

All of our llamas go through a foundational training progression. We want them to be catchable and halterable. They need to walk on a loose lead. We need to be able to pick up their feet, groom them, handle them, and expose them to things that might otherwise cause them concern.

A llama can't be a wild rodeo every time somebody tries to catch it.

Pack llamas receive additional training and experience beyond those basic requirements.

They need to demonstrate that they can actually do the work.



We also believe guardian llamas deserve training and handling, even though their primary job isn't necessarily to carry a pack or perform for a person.

A guardian llama may still need to be vaccinated, shorn, have its feet trimmed, or have a veterinarian examine it.

Being manageable matters.

But ultimately, its job is to protect the flock or herd it's responsible for.

That's why we don't try to force every llama into the same mold.

We determine what the individual animal is good at and match it to the appropriate job.

Why Education Became Part of Our Mission

When we first started looking for llamas, one of the hardest things was simply figuring out where to start.

Where do you find a good llama?

How do you evaluate one?

What should you know about training?

What equipment do you need?

What does it actually cost to own one?

What makes a good pack llama?

We had a lot of questions.

Fortunately, people like Greg were willing to spend time answering them.

That experience shaped the way I think about the llama community today.

I don't want Happy Homestead Llamas to simply be a place where someone buys a llama.

I want us to be a resource.

If somebody wants a pack llama, we'll help them understand what they're getting into.

If they want a pet, we'll help them find an appropriate animal.

If they want a guardian, we'll help them understand what characteristics matter.

And if we don't have the right llama, we'll help them find one somewhere else.

We've done quite a bit of llama brokering and connecting people with other breeders because we know what it's like to be on the other side of that search.

There are llamas out there for almost everybody.

But that doesn't mean every llama is right for every person.

Where We're Going

Today, we've scaled back our operations.

Our kids are older, and both my wife and I coach travel sports teams. Between family, school, sports, work, and our breeding program, our time is limited.

We're intentionally moving toward a small, boutique breeding and education program.



Our goal isn't to become a giant llama operation.

We'd rather produce two to four really good llamas a year than produce dozens.

Some will stay in our program.

Most will eventually go to new owners who are a good match for them

And we're increasingly focused on mentorship and education alongside the animals themselves.

Our hope is to develop a reputation that is simple:

If you want a quality llama, call Happy Homestead Llamas.

Maybe we have the llama you're looking for.

Maybe another breeder does.

Maybe someone else has an animal that would be a better fit.

Either way, we'll help you figure it out.

The California Opportunity

I also believe there is a tremendous opportunity for pack llamas here in California.

California has no shortage of people who love hiking, backpacking, hunting, camping, and exploring the outdoors.

But the pack llama isn't nearly as established here as it is in part of the Rocky Mountain West.

Our outdoor culture is a little different.

We have a huge population of minimalist backpackers, ultralight hikers, trail runners, and weekend warriors. Many people are accustomed to carrying everything on their backs.

But I think there are plenty of people who simply haven't considered another option.

Llamas are remarkably capable pack animals.

They have a relatively small impact of trails and campsites, are comparatively easy to care for, and can travel through terrain that many people don't realize a pack animal can navigate.

They're not horses.

They're not mules.

And they're certainly not the right animal for everyone.

But for the right person, a good pack llama can completely change the way you experience the wilderness.



Instead of spending all your energy carrying your gear, you can spend more of it enjoying the trail, the hunt, the scenery, the camp, and the people you're with.

And that's ultimately what keeps us here.

We're still learning.

We're still refining our breeding program.

We're still evaluating our llamas and trying to produce better ones.

But after all these years, I think we've finally figured out what Happy Homestead Llamas is supposed to be.

Small.

Intentional.

Quality-focused.

And committed to helping people find the right llama for the job.

That's our journey so far.

And we're looking forward to seeing where the llamas take us next.

HAPPY HOMESTEAD LLAMAS

happyhomesteadllamas.com



Charlotte Roberson

LANA Youth Award of Excellence

Judges Rob Knuckles and Margaret Drew awarded Charlotte with the LANA Youth Award of Excellence at the ALSA Regional Show held at the Antelope Valley Fairgrounds in Lancaster, CA, on September 27, 2026. Both judges commented on Charlotte's perpetual smile and positivity. If she said she would run the judges' score cards to the tabulation desk, she was there to do it. She helped all weekend and never complained. She was unfailingly kind to her animals and to her fellow exhibitors.

New World Screwworm

What Every Camelid Owner Needs to Know

FALA 2026 Educational Seminar | Recognizing, Reporting & Responding

Lisa Edwards, DVM, DACVIM, DACVECC

Marcela Valdes Soto, MVZ

University of Florida Large Animal Hospital
Gainesville, Florida

Sources: USDA APHIS | AAEP | EDCC | TAHC | FDACS | screwworm.gov

From a presentation at the 2026 Florida Alpaca & Llama Association Educational Seminar

OVERVIEW

What is New World Screwworm?



Cochliomyia hominivorax — Latin for "man-eater" — is a parasitic fly whose larvae feed exclusively on the living tissue of warm-blooded animals.

Unlike common blowflies that feed on dead tissue, NWS larvae REQUIRE living flesh to survive — making every open wound a potential infestation site.

Alpacas are fully susceptible.
Any wound — navel, shearing cut, fight injury — is an entry point.

SCIENTIFIC NAME
Cochliomyia hominivorax

FAMILY
Calliphoridae (blowflies)

NATURAL RANGE
Tropical & subtropical Americas; Caribbean

HOST RANGE
ALL warm-blooded animals — livestock, wildlife, pets, humans

THE PARASITE

The Screwworm Fly



1

Appearance

Metallic blue-green body; approximately 3× the size of a common housefly. Distinctive orange eyes. Easily confused with other blowflies — lab ID is needed for confirmation.

2

Egg Laying

Female lays 15–300 eggs per batch at wound margins, body openings (nostrils, eyes, vulva, navel), or tick attachment sites. Multiple females may target the same wound.

3

Lifespan & Range

Females mate once and store sperm for life, laying up to 2,800 eggs total. Strong fliers — can detect a wound from over ¼ mile away.
Adult lifespan: 3–5 weeks.

Adult flies are most active in warm weather (above 55°F). Fly season in the southern US spans spring through fall.

BIOLOGY

Life Cycle of the Screwworm

1

EGGS

12–24 hrs

Laid in clusters at wound margins. Pale white, ~1 mm. Hatch rapidly in warm weather — faster in heat.

2

LARVAE

5–7 days

Three larval stages. Bore headfirst into living tissue with hook-like mouthparts. The "screwing" motion gives the parasite its name.



3

PUPAE

7–10 days

Mature larvae drop to soil to pupate. Brown, barrel-shaped cases. Complete development underground.

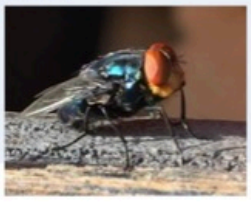


4

ADULT

3–5 weeks

Emerges from soil. Feeds on plant matter. Females seek wounds within days. Mates once — stores sperm for life.



NWS Life Cycle

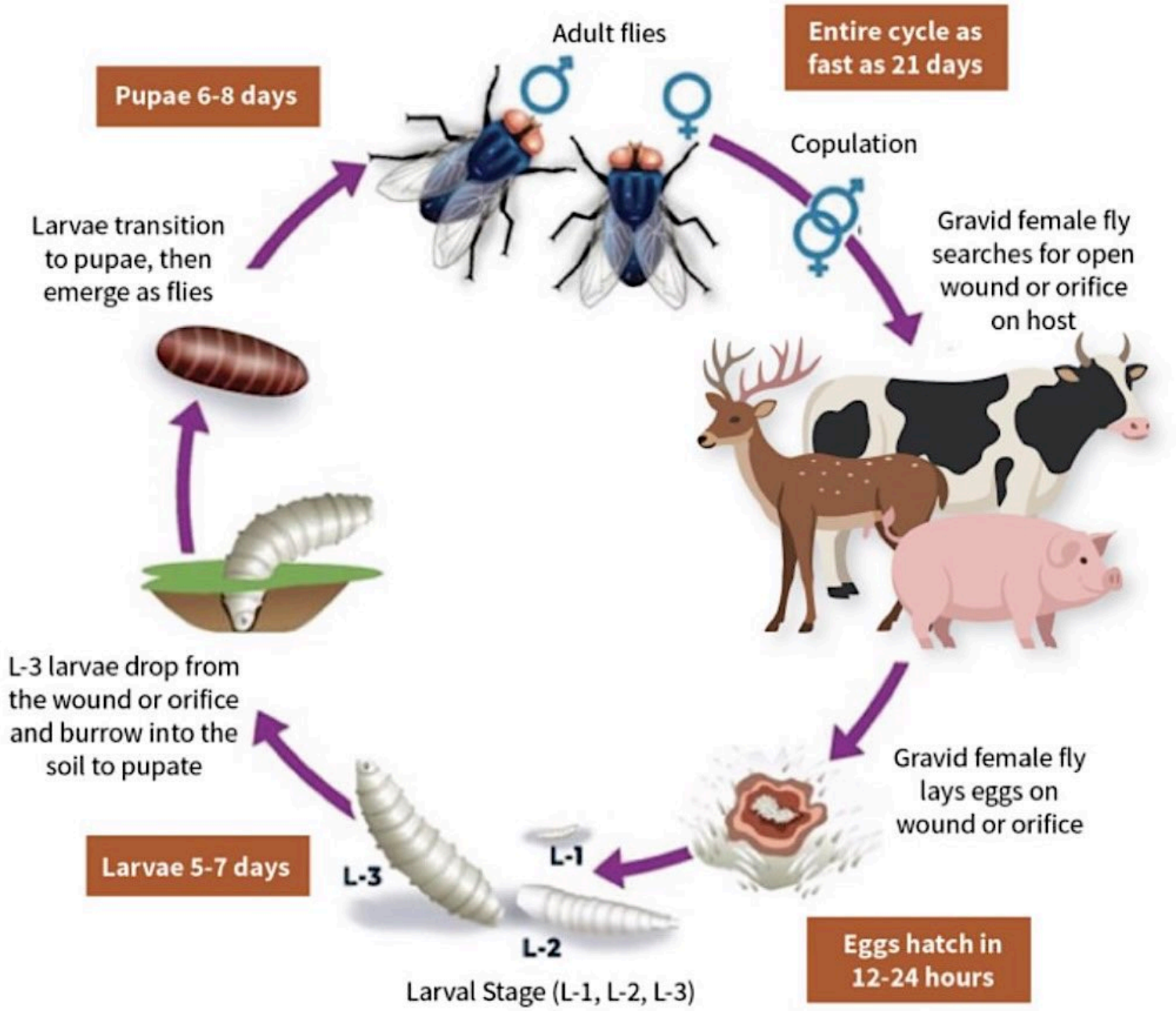


Image courtesy of USDA

THE THREAT

Why NWS is a Serious Threat

7–10

DAYS

to kill an untreated animal from first infestation

$1B+

PER YEAR

in economic losses prevented by the US eradication program

ANY

WOUND

is a potential entry point — navel, ear tag, shearing cut, tick bite, breeding injury

All warm-blooded animals are susceptible — including alpacas, llamas, cattle, sheep, dogs, deer, and humans.

HISTORY

History: NWS in the United States

Before eradication, New World Screwworm was endemic throughout the American South — Texas, Florida, and all Gulf states — causing devastating losses to livestock producers every year.

- Injuries from routine handling (ear tagging) became life-threatening
- Wildlife populations — deer, songbirds, fawns — were heavily impacted
- Human cases (myiasis) occurred occasionally in rural workers

PEAK LOSSES

$200M+

per year in US livestock (1950s)

STATES AFFECTED

15+

states across the South regularly infested

PRIMARY VICTIMS

Newborns

Navel infections most common cause of death

HISTORY

The Great Eradication (1958–2006)

In 1958, USDA launched one of the most successful pest eradication programs in history — eliminating NWS from the United States and eventually all of Central America.

- **1958** — Program launched; USDA begins mass-rearing sterile flies in Sebring, Florida
- **1966** — US mainland declared NWS-free; sterile fly releases continue at southern border
- **1976** — Florida Keys infestation eradicated; US-Mexico cooperation expands
- **1991** — Mexico declared NWS-free; sterile fly barrier shifts south
- **2000** — Central America declared NWS-free through collaboration with each nation
- **2006** — Panama barrier established; daily sterile fly releases maintain NWS-free zone

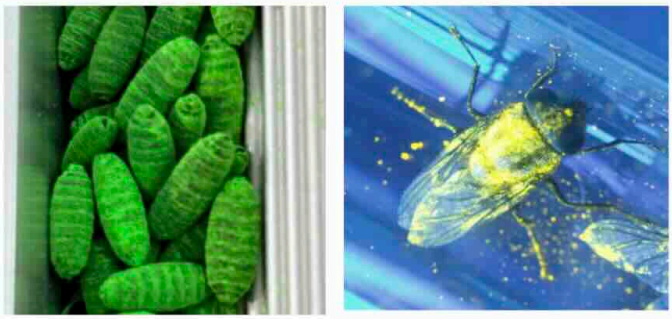
ERADICATION TOOL

The Sterile Insect Technique (SIT)

SIT is the cornerstone of NWS control. It exploits a critical biological vulnerability: female screwworm flies mate only ONCE and store sperm for life.

1. **Mass Rearing**
   Millions of NWS flies are raised in sterile laboratory facilities on artificial diet.

2. **Sterilization**
   Pupae are exposed to controlled gamma radiation — rendering males sterile but otherwise healthy and competitive.



Dyed sterile NWS pupae (lef); sterile NWS fly glowing under UV light (right)

ERADICATION TOOL

The Sterile Insect Technique (SIT)

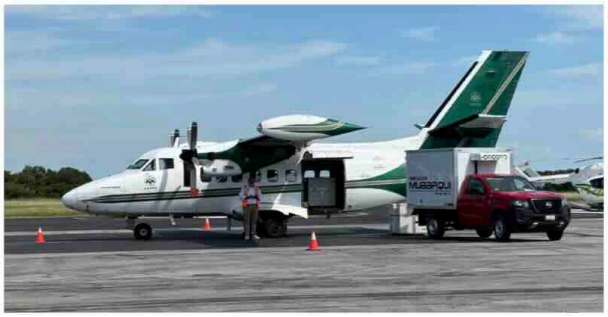
SIT is the cornerstone of NWS control. It exploits a critical biological vulnerability: female screwworm flies mate only ONCE and store sperm for life.

3 Aerial Release

Sterile male flies are released by aircraft over target areas, vastly outnumbering wild males.

4 Population Collapse

Wild females that mate with sterile males produce no viable offspring causing the wild population to collapse.



Today: USDA produces 100 million+ sterile flies per week
Goal: 500 million per week by 2028

PREVENTION

Decades of Prevention: The Panama Barrier

After eradicating NWS from the US and Central America, USDA and its partners maintained a sterile fly "barrier zone" at the Panama-Colombia border — releasing sterile flies daily to prevent reinfestation from South America.

Daily Releases

Millions of sterile flies released every day along the Panama barrier to maintain population suppression

Detection Network

Trap networks across Central America and Mexico monitored continuously for any NWS reappearance

Import Controls

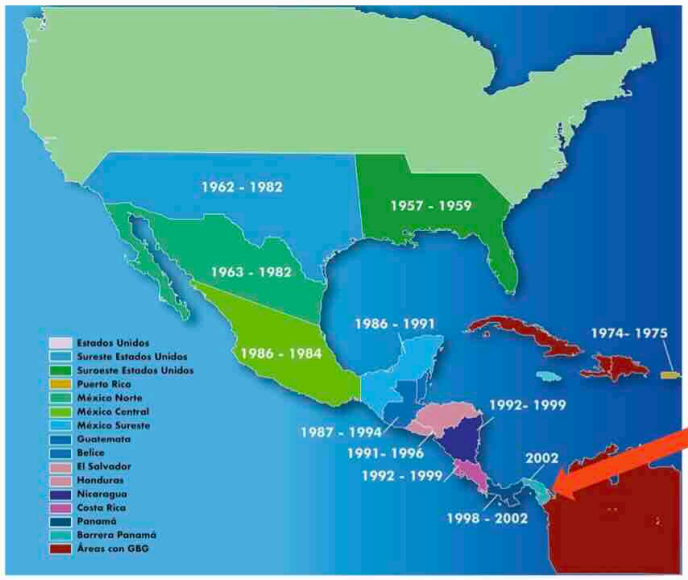
USDA inspects and treats livestock crossing the border to prevent movement of infested animals

Cost vs. Benefit

Program costs ~$10–15M/year; prevents over $1 billion annually in US livestock losses

PREVENTION

Decades of Prevention: The Panama Barrier





Panama–United States Commission for the Eradication and Prevention of Screwworm Infestation in Livestock (COPEG)

OUTBREAK

Timeline: Return of NWS (2024–2026)

Oct 2024	NWS detected in livestock in Darién Province, Panama — first in decades
Nov 2024	USDA suspends live animal imports from Mexico; emergency protocols activated
Dec 2024	NWS confirmed in Chiapas and Oaxaca, Mexico; spread accelerating northward
Feb 2025	USDA establishes NWS Directorate within APHIS; screwworm.gov launched
June 2026	First confirmed US cases in southern Texas; TAHC activates emergency response
2025–2026	Spread to New Mexico and additional areas; states issue high-alert advisories

OUTBREAK

The 2024–2026 Outbreak

After decades of successful control, NWS has re-emerged as a real and present threat to US livestock — requiring an urgent, coordinated federal and state response.

Federal Response

USDA created a dedicated NWS Directorate within APHIS. Central hub: screwworm.gov. Up to $100 million NWS Grand Challenge for innovative control solutions.

Sterile Fly Production

Production of 100+ million sterile flies per week. Aerial releases ongoing in affected border regions.

Import Restrictions

USDA imposed emergency livestock import restrictions from Mexico and affected countries. Livestock must be inspected and treated before crossing.

State Responses

Texas (TAHC) and New Mexico livestock boards activated emergency protocols. Mandatory reporting requirements in place across affected states.

CURRENT STATUS

Current Status (2026)

USDA APHIS maintains a publicly accessible Current Status Dashboard tracking confirmed NWS cases nationwide. Check it regularly if you are in or near an affected state.

CONFIRMED IN

Texas & New Mexico

Cases confirmed in southern US as of 2026

WATCH STATES

All Border States

AZ, CA, FL on high alert; active monitoring ongoing

USDA PRODUCTION

500M+ flies/week

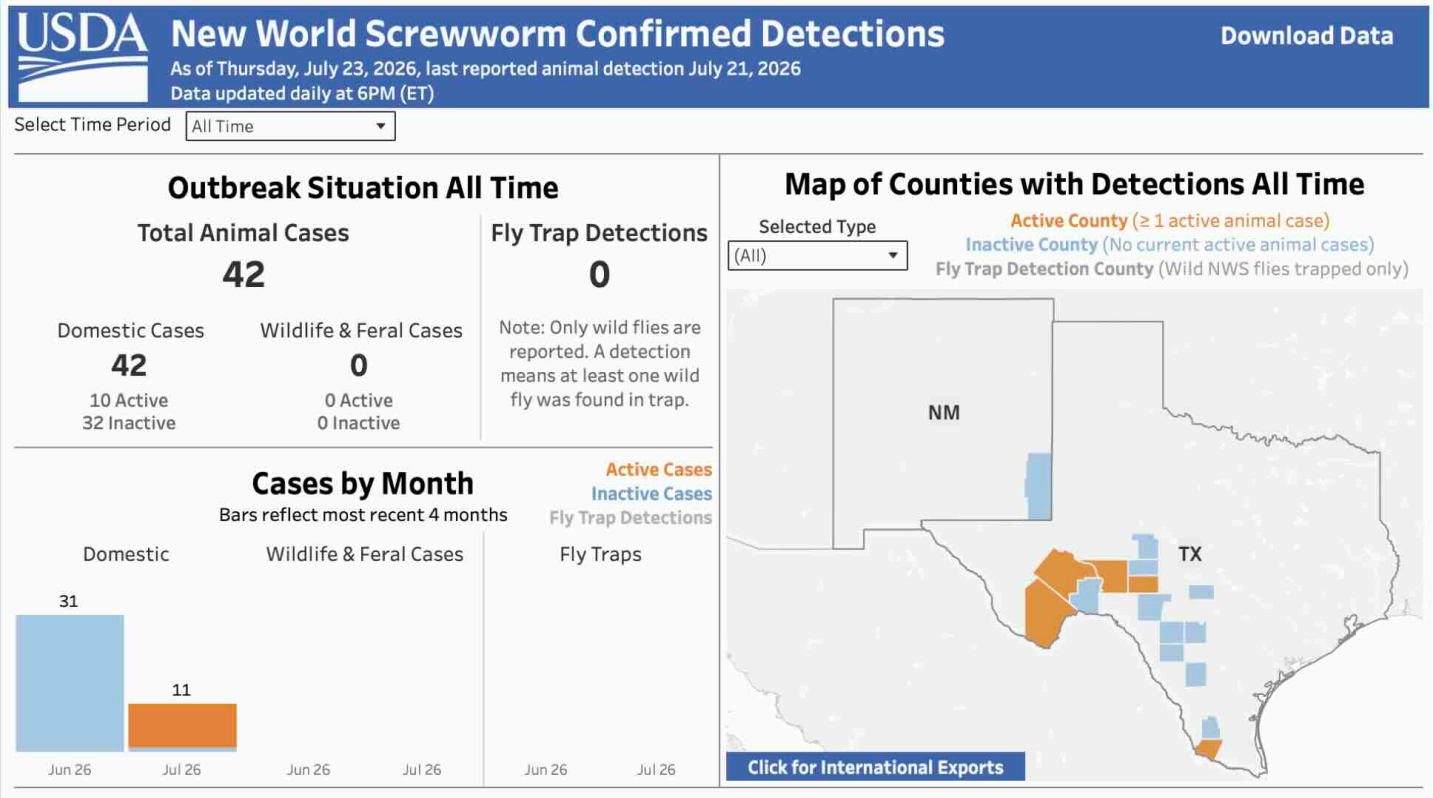
Sterile flies produced for ongoing aerial releases

TRACK CASES

USDA APHIS Current Status Dashboard

aphis.usda.gov /animals/animal-health/ livestock-and-poultry-disease /current-status

Updated as new cases are confirmed



RISK AREAS

Geographic Risk Areas

NWS thrives in warm climates. Risk is currently highest along the southern US border, but any area receiving animals from affected regions is at potential risk.

HIGHEST RISK	Texas, New Mexico	Active confirmed cases; immediate risk to all livestock
HIGH ALERT	Arizona, California, Florida	Border proximity or livestock trade links; active monitoring
WATCH ZONE	All other states	Risk from animal movement; follow state animal health advisories

Important: NWS can arrive in any state through livestock transport from affected areas.

SUSCEPTIBILITY

Which Animals Are at Risk?

ALL warm-blooded animals are susceptible. NWS does not discriminate by species.

Alpacas & Llamas
All wounds at risk; NAVEL of newborns is critical

Cattle & Horses
Historically the most affected — large wound surface areas

Sheep & Goats
Shearing wounds and foot rot are common entry sites

Pigs & Poultry
Susceptible; fight wounds and beak trimming sites at risk

Dogs & Cats
Tick bites, fight wounds; pets allowed outdoors are at risk

Wildlife (Deer)
Antler velvet, fawn navels — wild populations severely impacted

Alpaca-specific high-risk events: parturition (birth), shearing, castration, ear tagging, breeding injuries, and any fight wounds.

INFESTATION

How Infestation Occurs



1. **Wound Detection:** Adult female detects blood or wound discharge from over ¼ mile. Attracted to any open wound, body orifice, or fresh tick attachment.
2. **Egg Deposition:** Female lands at wound margin and lays 100–300 eggs in minutes. Eggs adhere in mass at wound edge — visible as white clusters.
3. **Rapid Hatching:** Eggs hatch in just 12–24 hours in warm weather. More flies are attracted to the wound by larval secretions — compounding the infestation.
4. **Tissue Destruction:** Larvae burrow into living tissue, drilling in a screwing pattern. They enlarge the wound, releasing chemicals that attract even more gravid females.
5. **Rapid Progression:** Without treatment, a small wound can become a fatal cavity within days. High summer temperatures accelerate all stages dramatically.

WOUND RISK

Recognizing High-Risk Wounds

During fly season, every wound on your alpaca is a potential NWS infestation site. Know which wounds demand immediate attention:

CRITICAL

Navel / Umbilical Cord

Newborns are most vulnerable — treat navel within 24 hrs of birth

HIGH

Castration Sites

Open surgical wounds in warm weather are prime targets

HIGH

Fight / Bite Wounds

Common in alpacas; check daily during breeding or integration

MODERATE

Tick Attachment Sites

Small but open — flies can deposit eggs at tick-bite sites

HIGH

Shearing Cuts

Even small nicks require inspection and protection during shearing

HIGH

Ear Tag / Piercing

Any piercing wound attracts flies immediately

MODERATE

Breeding Injuries

Vulvar or penile trauma from mating; inspect after breeding

MODERATE

Foot Rot / Abscesses

Moist, odorous wounds are highly attractive to gravid females

CLINICAL SIGNS

Clinical Signs: Early Stage (24–72 Hours)

Early recognition is critical. Infestation can be treated successfully if caught in the first 24–72 hours. Know what to look for:

1

Restlessness & agitation

Animal paws ground, stamps feet, is unable to settle; unusual behavior compared to herdmates

2

Head shaking & rubbing

Particularly if wound is on the head, ears, or neck; repeated rubbing against fencing or feeders

3

Self-grooming the wound

Excessive licking, biting, or rubbing at a specific wound site; attracted by larval secretions

4

Separation from herd

Infested animals often isolate themselves; this is a critical behavioral warning sign

5

Wound appears wet/moist

Wound has increased discharge; may have unusual or foul odor even in early stages

6

Eggs visible at wound edge

Small white to cream clusters at wound margin (1–2 mm); may resemble dandruff or dry skin

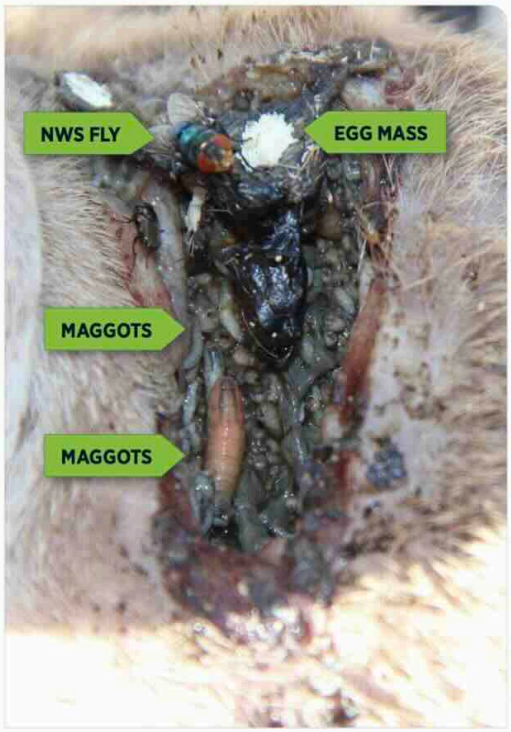
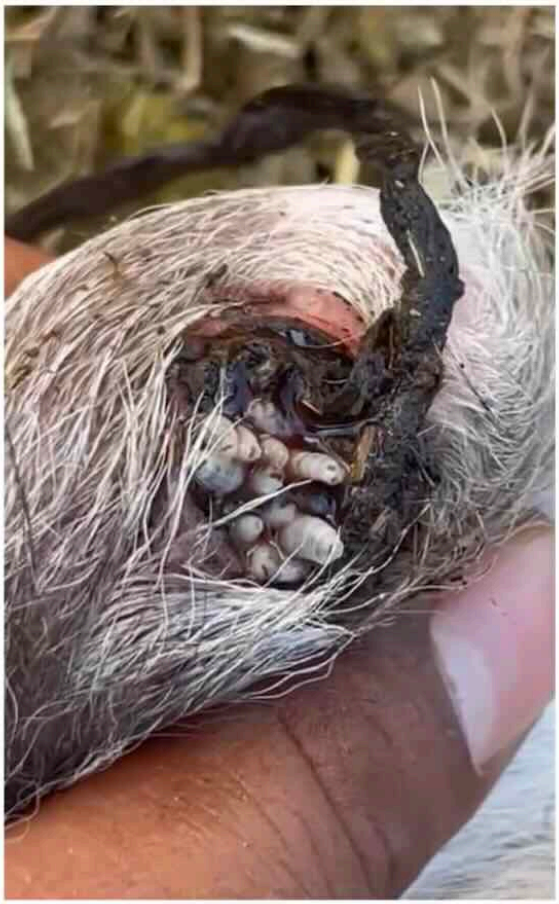


Photo courtesy of USDA.



New World Screwworm infestation in dogs neck/PC: USDA





CLINICAL SIGNS

Clinical Signs: Advanced Infestation

If not caught early, NWS infestation advances rapidly. Advanced cases carry a grave prognosis and require emergency veterinary treatment:

Local Signs:

- Expanding wound cavity with visible maggots (cream/white, 1–2 cm)
- Powerful, distinctive foul odor — detectable from several feet away
- Profuse, bloody or serosanguineous wound discharge
- Tissue destruction spreading rapidly beneath wound surface

Systemic Signs:

- Animal in obvious pain; flinching on approach or wound palpation
- Fever, weakness, loss of appetite, depression, reluctance to move
- Multiple egg masses present — secondary fly attraction is common
- Death can occur within 7–10 days of initial infestation if untreated

IDENTIFICATION

Identifying NWS Maggots



Not all wound maggots are NWS. Accurate identification requires laboratory analysis — but knowing what to look for helps guide your response:

Color & Size

Cream to pinkish-white. 1.5–1.7 cm when fully mature (3rd instar). Smaller in earlier larval stages.

Distinctive Shape

Tapered at the head end; blunt at the tail. Spine-like rings around the body give the characteristic "screw" appearance.

Movement

Burrow headfirst into tissue. Characteristic spiral, drilling motion — unlike surface-feeding blowfly maggots.

Wound Context

Found burrowed deep in living tissue, not on dead/necrotic tissue. Multiple life stages often present in same wound.

IDENTIFICATION

Identifying NWS Maggots

- Accurate identification requires laboratory analysis!
- Collect larvae and preserve in 70% isopropyl alcohol for lab ID. Do NOT discard any larvae removed from a wound.





DIAGNOSIS

Diagnosis: What to Expect

1	**Clinical Suspicion**	Wound with maggots, foul odor, or fly activity in a warm-blooded animal in or from an at-risk region.
2	**Collect Specimens**	Remove larvae from wound. Place in 70% isopropyl alcohol or freeze. Label container with date, animal ID, wound location.
3	**Contact Authorities**	Notify your veterinarian AND state animal health official BEFORE treatment if possible — they may need to collect samples. NWS is a reportable disease.
4	**Laboratory ID**	USDA APHIS National Veterinary Services Laboratory provides official identification. PCR testing available for definitive confirmation.
5	**Begin Treatment**	Do not wait for lab results to begin wound management. Work with your veterinarian on immediate supportive care.

CRITICAL:

Report Immediately!

NWS is a FEDERALLY REPORTABLE DISEASE. Early reporting allows officials to collect specimens and coordinate response before treatment disrupts evidence.

USDA APHIS

1-866-536-7593

Federal Veterinary Services (24/7)

FL Department of Agriculture and Consumer Services (FDACS)

(850) 410-0900

Emergency after hours line: 1-800-342-5869

Your State Vet

Find at usaha.org

Contact your state animal health official

Report BEFORE treating if possible — or treat and report simultaneously. Do not wait.

TREATMENT

Treatment: Wound Management

ALL treatment should be done under veterinary direction. For alpacas, most products are extra-label use — a valid veterinarian-client-patient relationship (VCPR) is required.

1. Safely restrain the animal to allow thorough wound examination
2. Manually remove ALL visible maggots — use tweezers or forceps; collect in alcohol for specimen ID
3. Irrigate wound thoroughly with saline or veterinary antiseptic solution to clean debris
4. Apply an approved topical insecticide (F10 Spray, F10 Ointment, or Negasunt Powder)
5. Administer systemic insecticide per veterinary direction (doramectin injectable or ivermectin extra-label)
6. Bandage wound if location permits; keep animal in clean, dry, fly-protected environment
7. Re-examine wound daily; re-treat if new larvae appear. Antibiotics as directed for secondary infection
8. Follow up with your veterinarian and report outcome to state animal health officials

TREATMENT

Approved Treatment Products

The following products have received FDA Emergency Use Authorization (EUA) or are used extra-label under veterinary supervision. Alpaca use is extra-label for most products — always consult your veterinarian.

SYSTEMIC

Dectomax Injectable (Doramectin)

EUA issued for horses ≥1 yr. Extra-label use in alpacas with VCPR. Provides systemic insecticide action against larvae. Withholding period applies.

SYSTEMIC

Ivermectin

Extra-label use under veterinary supervision. Commonly used in camelids. Provides systemic larval suppression. Dose by weight — consult your vet.

TOPICAL

F10 Antiseptic Wound Spray w/ Insecticide

FDA EUA approved topical spray. Applied directly to wound and surrounding area. Provides antiseptic action plus insecticide barrier against re-infestation.

TOPICAL

F10 Barrier Ointment & Negasunt Powder

Both received FDA EUA. F10 Ointment protects wound margins. Negasunt Powder (coumaphos) applied to wound to kill larvae on contact. Used under veterinary direction.

PREVENTION

Prevention & Fly Control

Prevention is far easier than treatment. Establish a NWS prevention protocol with your veterinarian NOW — before an outbreak occurs in your area.

Wound Prevention

- Minimize handling injuries — use proper restraint technique
- Treat ALL wounds immediately with antiseptic; monitor daily
- Treat navels of ALL newborns within 24 hours of birth
- Schedule shearing, castration, and ear tagging outside peak fly season where possible
- Separate recently wounded animals into a fly-protected area

Fly Control

- Permethrin pour-on or spray: EPA-registered for fly control in livestock
- Coumaphos (Co-Ral): EPA-registered; use per label directions for species
- Insecticide-impregnated ear tags: reduces fly burden on individual animals
- Maintain clean facilities: remove manure and organic waste to reduce fly breeding
- Fly traps and bait stations: reduce adult fly population around premises

FDA-CONDITIONALLY APPROVED & AUTHORIZED ANIMAL DRUG OPTIONS

The **FDA** has expanded access to medications to prevent and treat **New World Screwworm (NWS)** in animals. While there are currently no products with FDA approval for NWS, below is a summary of products conditionally approved and authorized by the FDA as of July 15, 2026.

CONDITIONALLY APPROVED BY FDA



Dectomax-CA1(doramectin injection): Prevention and treatment of NWS in cattle; prevention of reinfestation for 21 days.



Exzolt Cattle-CA1 (fluralaner topical solution): Prevention and treatment of NWS in cattle.



Credelio Quattro-CA1 (lotilaner, moxidectin, praziquantel, pyrantel): Treatment of NWS in dogs.

EMERGENCY USE AUTHORIZATIONS (EUAS) BY FDA



NexGard (afoxolaner) chewable tablets: Treatment of NWS in dogs and puppies.
NexGard COMBO(esafoxolaner, eprinomectin, and praziquantel topical solution): Treatment of NWS in cats and kittens.



Credelio (lotilaner) chewable tablets: Treatment of NWS in dogs and puppies.
Credelio CAT (lotilaner) chewable tablets: Treatment of NWS in cats and kittens.



Dectomax/Dectomax-CA1 (doramectin injection): Prevention and treatment of NWS in dairy cattle. Prevention of NWS in horses, swine, sheep, and deer



Ivomec (ivermectin) injectable solution: Prevention of NWS in cattle.



Negasunt Powder (coumaphos, propoxur, and sulfanilamide topical powder): Prevention and treatment of NWS in cattle, swine, goats, sheep, horses, donkeys, domestic hybrid equids, and captive wild, exotic, and zoo mammals.



F10 Antiseptic Wound Spray and Barrier Ointment with Insecticide (benzalkonium chloride, polyhexanide and cypermethrin topical ointment): Prevention and treatment of NWS in cattle, horses, minor species of hoof stock, raptors and other wild birds, pet birds, and captive wild, exotic, and zoo mammals.



Nitenpyram Tablets (nitenpyram): Treatment of NWS in dogs, puppies, cats, and kittens



Ivermectin Liquid for Horses (ivermectin oral solution): Prevention of NWS in horses.

Resources & Next Steps

Know the signs. Have a plan. Report immediately.

USDA NWS Central Hub
screwworm.gov
Current news, case counts, producer resources

USDA Case Dashboard
aphis.usda.gov / current-status
Live confirmed-case tracking by state

AAEP NWS Guidelines
aaep.org/resource/aaep-infectious-disease-guidelines-new-world-screwworm
Clinical guidelines and treatment protocols

EDCC NWS Page
equinediseasecc.org/new-world-screwworm
Equine & large animal disease communication

US Food & Drug Administration
https://www.fda.gov/animal-veterinary/safety-health/new-world-screwworm-information-veterinarians

FDACS (Florida)
fdacs.gov / New-World-Screwworm
Florida Department of Agriculture NWS page

Work with your veterinarian now — before NWS arrives — to create a written response plan for your farm.

Lisa Edwards, DVM, DACVIM, DACVECC
Large Animal Internal Medicine Specialist
Large Animal Emergency and Critical Care Specialist

Marcela Valdes Soto, MVZ
Large Animal Internal Medicine Resident

University of Florida Large Animal Hospital
2147 Shealy Drive
Gainesville, Florida 32608

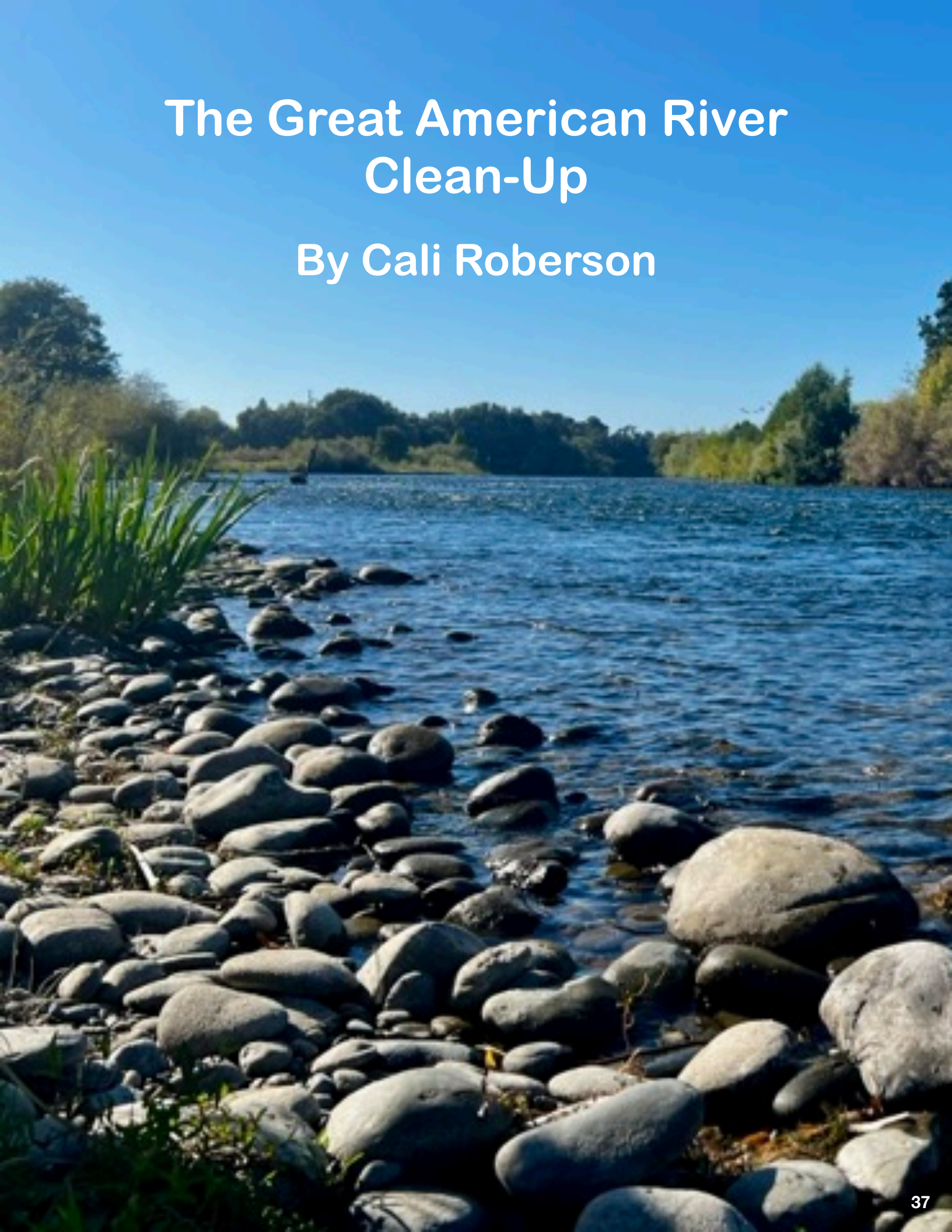
To make an appointment
Call (352) 392-2229

24/7 Emergency service (in hospital)
Call ahead (352) 392-2229

Thank you to the Florida Alpaca & Llama Association for granting LANA permission to reprint the slideshow presentation at the 2026 FALA Educational Seminar.

The Great American River Clean-Up

By Cali Roberson



Once again, LANA members attended the annual Great American River Clean Up (GARCU) in Sacramento, CA. This event brings together hundreds of volunteers who gather at a variety of locations to clean up along the American River Parkway. The Parkway is a series of parks, natural areas, trails, and miles of bike paths that extend from Folsom Dam to the confluence of the American and Sacramento Rivers. Our group chose to meet at River Bend Park, a site at which we have chosen to volunteer for many years.





Upon arrival this year, we could see things were a little different. The signs directed us past our usual parking area at the park to a more secluded area further into the riparian area. I had my 24' stock trailer, so when the road turned down a more narrow road, I opted to park a little further away. The other members of our group brought their llamas in vans, so they made it easily to the site's parking lot. In attendance were: Joy and Stephanie Pedroni with their llamas Karalahna and Espadeiro, myself and my daughters (Audrey and Charlotte) with our llamas McClure, Don Pedro, and Lily. Friend and former LANA BOD, Lee Beringsmith, also attended with his llama Leche.

We put our packs on our llamas and gathered for instructions. In the past, we have dispersed to gather trash along the river or trails or wherever we can find it. Every year we seem to find less trash, which is a wonderful thing, but makes for less adventure. This year, our site was being developed as an "educational area" where groups can come and learn about nature and the environment near the river. The Parkway Foundation wanted to use this year's volunteers to help beautify the area by spreading mulch on designated paths as well as cleaning up trash. They had huge mulch piles with wheelbarrows and sledges for moving the mulch and rakes for spreading it out.

Since we had come prepared to pick up trash and didn't really see how the llamas would be very helpful at spreading out mulch, we set out to find trash again. We found a trail that took us down to the river and promptly came upon a large, abandoned, homeless camp. The trash bags we brought with us were quickly filled and we began stuffing the bags we found in the camp with more trash. We piled treasures like pants, an air fryer, and sleeping bags onto larger blankets and tarps. Our plan was









to tie up those bundles and place them as top loads on 3 of our llamas.

We fought through blackberry brambles and poison oak to get our trash out of the thick trees and brush along the river's bank. It seemed like a good idea to get our animals out into a clearing before loading them so we wouldn't lose the loads in the trees. When we lifted the loads onto our llamas, we realized they were quite precarious. Stephanie managed to tie her load onto Espadeiro, but my girls were out of rope to tie their loads down adequately. We had used up my supply of trusty bailing twine I always keep stashed away in one of my packs. We contemplated walking beside our llamas to hold the loads in place, but they were so unbalanced, and the outer material of the bundles was beginning to tear. These were not going to be fun to try to carry out ourselves, but we had already worked so hard gathering it all that we couldn't give up!

That's when I had an idea: the wheelbarrows and sledges the other volunteers were using would be perfect to haul our bundles! We had only travelled less than half a mile from our main site, so I quickly went back to recruit help. I returned with one wheelbarrow and two sledges and several volunteers. We loaded our big bundles onto them and returned to the main site with quite a haul. We spent the last hour sanitizing our hands and talking to the other volunteers about llamas. This is what I get for wanting more adventure!



37th Annual GALA Camelid Conference

CONFERENCE DETAILS

October 22–25, 2026

Hilton Scranton • Scranton, PA

Make a reservation today!

"The Herd Is Gathering..."

JOIN US

Join camelid enthusiasts from across the country for two-and-a-half days of education, connection, and community!

MEET OUR SPECIAL GUESTS

Cindy Ross - Author, Adventurer & Long-Distance Llama Packer
Chris Cebra DVM
Antoinette Marsh DVM
Char Arendas DVM
Pamela Walker DVM
Adam Black - Trainer
Sibel Mallory - Needle Felting Artist
Henry Ramsay - Fly Tying Expert

SOME OF THE 45 SESSIONS...

- Microchipping & Fighting Teeth
- Parasite Management
  - M-Worm Research Update
  - Understanding Parasites
- Packing 101
- Halter & Obstacle Training
- Hay Quality Assessment
- Painting With Yarn
- Fly Tying With Camelid Fiber
- Assessing, Preparing & Using Fiber
- The Geriatric Llama
- Breeding & Birthing
- Pioneer Reunion
- Veterinarian Day

FIRST TIMERS DISCOUNT
$125 **OFF CONFERENCE FEES**
(as a GALA Member)

Hotel Information

Additional accommodation's available at:
SpringHill Suites - by Marriott Scranton - Montage Mountain
(570) 207-1212

Scan For Hotel

Learn more and book your room at:
galaonline.org/2026-conference

Patience, A True Virtue

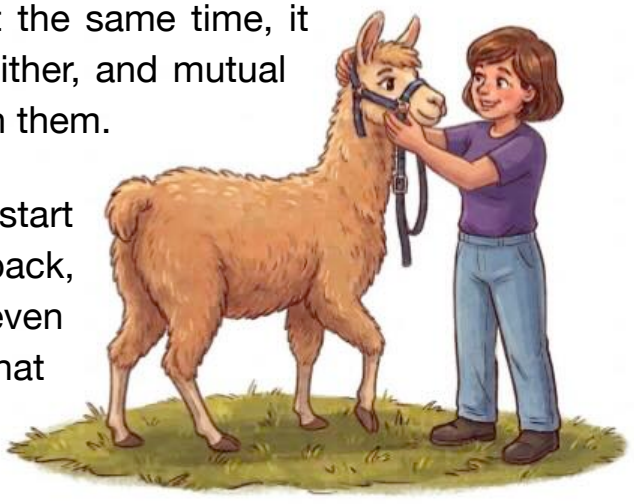
By Virginia Christensen

Reprinted from a previous *LANA News*

How many times have we worked with our animal friends and, because things were not going as we expected, started to lose our temper? No doubt it has happened to all of us; I know it has happened to me on occasion. Perhaps I was tired or cranky to begin with, so in all honesty, I shouldn't have gotten started in the first place!

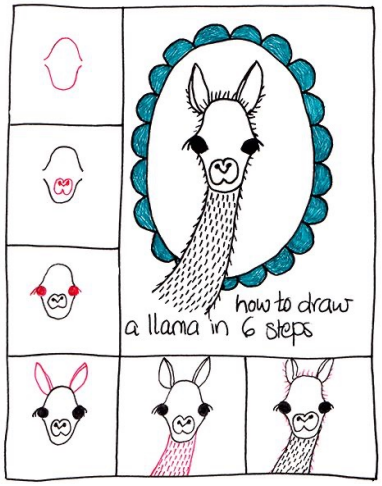
There are llama trainers I greatly admire, and the thing I admire most is the patience and understanding they use while working with even the most difficult llamas. I've watched both Jim Logan and the Barkmans during quite a few training sessions over the years and have never seen them raise their voice or get impatient. I single these folks out, not because they are the only great llama trainers, but because I've had so many opportunities to watch them at work. Of course, they are professionals, but I've also watched some professional horse trainers too, and some of them I wouldn't want close to any of my animals! One, very wise, old horse trainer once told me, "Bad behavior comes as a result of fright, and any problems stem from a bad handler, and not a bad horse." That is advice I've tucked away and always try to remember, even though we have a few llamas which, on some days, make it very hard to believe that advice!

Somehow there seems to be a need in the human make-up to "show 'em who's boss," and it comes easier for some to exercise this behavior on our four-legged friends. It's true, isn't it, this same bully attitude directed toward our human counterparts won't earn their respect; at the same time, it doesn't earn the respect of our animal friends either, and mutual respect is a very important aspect in working with them.



So, if we are having a "bad day," if we find we start losing patience even on a "good day," let's step back, save our interaction for later. In that way, even though we might not take one step ahead in that session, we certainly won't be moving back ten!

LANA YOUTH WRITING & ART CONTEST



LANA invites youth of all ages to submit original work for a contest

- A piece of writing such as:
    - an article on any camelid-related topic of interest to the youth
    - a fictional story involving camelids
    - a poem about an alpaca or llama or a herd

- A piece of original artwork with camelids included

NOTE: **<u>One</u>** submission per youth (writing **<u>or</u>** artwork)

Written pieces should be 1000 words or less. If the author chooses to include images (illustrations or drawings or photographs), there should be no more than four to accompany the writing. The images that accompany a piece of writing will not be considered for the Art contest; they will be seen as part of the written submission. If completed on the computer, written pieces should be typed in Times New Roman font, and double-spaced, with the author's name on each page in the header.

Pictures or scanned artwork should be submitted as .jpeg files with a resolution of at least 300 dpi. The contest should be the original work of the youth author/artist. Artwork does not include "wearable" fiber projects such as knitted or crocheted scarves or sweaters.

Submit written pieces and scanned artwork electronically to Susan Rich along with the cover sheet (available on LANA's website) at lanaquestions@gmail.com. The **deadline** for the annual contest is **November 1st**.

One winner for the written submission and one winner for the art submissions will be chosen for each of the five categories: sub-junior, junior, intermediate, senior and special needs. Winners will receive a cash prize and written prize and written pieces and artwork will be published in the LANA Newsletter and posted on the LANA website.

Hypothermia

Dr. David Anderson

As we enter the autumn months in North America, my thoughts drift to concerns for care and management of livestock during the often-harsh environmental conditions of winter. In general, llamas and alpacas are well suited to cooler temperatures. After all, winter in the Andes can be trying on the soul if one is not prepared for it. However, camelids are susceptible to extremes of environment, hot (hyperthermia) or cold (hypothermia). The highest risk animals on the farm are very young, very old, very thin, or diseased camelids.

Perhaps the biggest concern we have for hypothermia are newborn crias. Crias are born without the stores of fat needed from which to draw energy to maintain body temperature. Newborns are dependent on the dam's colostrum and milk to provide glucose, fat, and protein. Early and frequent access to these nutrients are critical for the cria to survive the first few days of life. Without the milk fat, crias have a limited ability to maintain body temperature and blood glucose, both of which are necessary to survival. When crias are exposed to extremes of temperature, they must burn energy at a much higher rate to maintain body temperature and the remainder of the body systems may become starved. At some point, the cria is unable to ingest adequate milk to survive and hypothermia begins. These crias are often found down in the pasture in a kushed position with the head and neck extended in front of them on the ground. This posture is designed to close off all areas where heat is lost: around the tail (perineum), between the legs (axilla and groin), the underside of the belly (ventral abdomen), and the base of the neck (sternum and thoracic inlet). At this point and if body heat and energy are not restored quickly, the cria will die from hypothermia and hypoglycemia (low blood glucose) within a few hours.



The veterinary community has spent considerable time and energy evaluating risk factors and developing prevention strategies for heat stress. This is time well spent but we must consider both sides of the coin. Several years ago, a new farm lost several alpacas to heat stress. The farm did not have adequate shade and had not sheared the alpacas. When the peak daytime temperatures rose above 90 F and humidity climbed to 80%, the alpacas could no longer tolerate the extremes and several died before intervention could be instituted. The most significant factor seemed to be that the night time temperature did not fall below around 80 F. Thus, the alpacas could not exhaust the heat build up from the day before. This is bad when you are wearing an alpaca sweater! The next year, the farm manager was determined not to succumb to the same problem and the alpacas were shorn in April of the next year. Unfortunately, a bitter cold spell including freezing temperatures and snowfall hit that area late in April. Eight alpacas were hospitalized for hypothermia and, fortunately, all were saved. I enjoyed watching them walk around with Ohio State sweatshirts on!

These lessons are simple: management and husbandry practices greatly influence an animal's ability to thrive. Consider your farm in light of the following tips for prevention of hypothermia:

1. **Shelter:** Camelids must be provided with a shelter from which they can seek protection form environmental extremes. These facilities should have sufficient width, length, and height to allow protection from wind. If three-sided shelters are used, a portion of the open side may be enclosed to provide a more effective windbreak. The orientation of the shelter should be such that the open side is not presented to prevailing winds (e.g. in Ohio, shelters face southeast to brace against northwesterly winds). Our research has shown that llamas and alpacas will "loaf" (referring to relaxed kushing rather than seeking shelter for protection) in shelters that provide approximately 36 square feet per animal. During environmental extremes (e.g. cold below 20 F, high wind, hard rain, sleet/ice, heavy snow) llamas and alpacas will utilize shelters at a rate of 18 to 24 square feet per animal. Inadequate shelter space will cause animals to be "left out" without protection from the environment.



2. **Bedding:** Bedding should be sufficient to help camelids close off their natural thermal windows. Remember, in summer we are trying to increase the thermal window. In winter, our goal is to decrease this thermal window. I prefer straw for this purpose. Straw is inexpensive, clean enough to use for birthing areas, has adequate insulating features, and can be easily cleaned from the floor and fiber coat.

3. **Water:** Water is a critical nutrient in all seasons. Ingestion of water fluctuates with the temperature of the water. When water is near freezing or frozen, water intake is decreased. Insufficient water intake causes decreased feed intake and the ability to regulate body temperature becomes impaired. In lactating females, milk production suffers and crias will fail to gain weight or will lose weight. If passive waterers are used (e.g. buckets, troughs), the water should be refreshed daily or several times a day as needed. I prefer heated automatic waters to optimize access and decrease labor.

4. **Foodstuffs:** During extremes of cold, camelids have a vital need for energy. I am often asked to consult on farms during winter months because females are losing weight, crias are not gaining weight, or hypothermia cases have been seen. Many of these problems can be tied to inadequate winter nutrition. Grain feeding may be increased to provide rapidly metabolizable energy sources, but this must be done cautiously. Over feeding of any grain source can cause acidosis in the fermentation chamber (C1) of the stomachs and this will exacerbate the problem. Corn is the "hottest" grain in that it provides the most readily fermentable carbohydrates of the cereal grains, but this also makes corn the most risky for causing acidosis. I prefer to add oats to a winter ration because this feed provides more fiber than corn and is less prone to acidosis. Example: if a herd is feeding a commercial camelid pellet ration at 0.5 lbs per head per day, oats may be added at 0.5 lbs per head per day to increase energy intake. The addition of the oats should occur slowly over two weeks to allow the flora of C1 to adapt to the change in diet. Hay should be analyzed before winter months. I prefer to test each new shipment of hay and make acceptance of the hay contingent upon this analysis. Total digestible nutrient content of the hay should exceed 55% and is most desirable to exceed 60% for winter forage. I recommend that every animal in every herd have a BCS (body condition score) done every month. Loss of body condition score should be addressed quickly unless it can be explained (e.g. females are expected to lose 1 to 1.5 BCS during the first 2 months of lactation).

5. **Feeding Management:** Providing adequate quality of feed is only one-half of the story. Providing adequate access to feed is the other. In regions where heavy snowfall occurs and in areas where ice storms are common, camelids must be able to gain access to feed. In these situations, I prefer to offer feed inside of the shelter so that animals are not required to walk to a different location to get feed. Camelids will opt for protection against environmental extremes rather that eat or may eat for fewer hours each day. For farms that have barns this is rarely an issue. Farms using three-sided shelters may have a more difficult time providing sheltered feed.



6. **Ventilation:** During summer months, high ventilation is desired. During winter months, ventilation remains important. When shelters are "battened down" for the winter, we must be careful not to over-insulate the interior. Camelids tend to urinate and defecate inside of shelters. Who can blame them? Nobody likes a draft in the bathroom! If ventilation is too restricted in winter housing, ammonia and other gases from the dung pile buildup and can contribute to winter pneumonia and poor thriving crias. As always, hygiene is the key to success.

7. **Shearing:** Talking about shearing for winter seems strange at first, but what I am referring to here is 'when did you shear and how is your fiber growing'. Last year, I worked with a herd that had not been able to shear until late in July. Although nutrition was adequate, there was not much room to spare. The fiber coats had not grown well enough before winter to provide adequate protection from the wind. Examination of the herd revealed a suboptimal herd BCS (average 4 out of 10) and approximately 25% of the herd had subnormal rectal temperatures (average of hypothermic alpacas 98 F). Although this temperature was not acutely critical, the chronic environmental stress decreased immunity, decreased lactation, and caused weight loss. Nutrition and sheltering had to be addressed quickly, and, within a few weeks, the problem had stabilized. Unfortunately, the affected alpacas required over 1 year to fully recover.

8. **Maternity:** Two important concerns for newborns are cleanliness and warmth. Females have been known to give birth in open fields in the snow when they do not have access to a clean shelter in which to birth. These crias are at high risk for hypothermia if shelter is not provided. In our research, females that had access to a 14 x 16 foot shelter rarely gave birth inside of that shelter in either winter or summer. We assume that the reason for this was the presence of a dung pile in the shelter and a perception by the female that the environmental stress was too great. When females had access to a 25 x 60 foot shelter, the females always gave birth inside of the shelter despite the presence of two dunging areas within the shelter. We assume that the surface area of the shelter was large enough to allow criation and overcome the females concern for the presence of dung piles.

9. **Stocking densities:** Stocking density refers to the number of animals per unit area. I recommend that farm stocking density be no more than 5 llamas or 7 alpacas per acre of land for grazing to maximize forage utilization and minimize parasite burdens on pastures. In winter, grazing is not an issue for most farms because the animals will voluntarily congregate around hay feeders and shelters. Hygiene becomes a vital concern. Our research has shown that a minimum of 12 inches is required for bunker feeders to allow simultaneous feedings. However, this results in failure to feed by many of the submissive animals. Bunker space of 24 inches per head resulted in fewer submissive animals being excluded. Hay feeder space is equally important. Camelids may spend 8 hours or more feeding

on hay each day. If limited feeder space is available, submissive animals will not be able to ingest enough hay to maintain weight and will be more prone to hypothermia.

10. **Parasites:** Often, winter is thought to provide a "reprieve" from parasites that cannot survive the harsh cold and the eggs to which fail to hatch into infective larvae. This is true for most intestinal parasites. However, winter is fertile ground for transmission of some parasites (e.g. coccidia, whipworms, lice, mange, skin fungus) because of close animal-to-animal contact and diminished hygiene. Heavy parasite burdens cause stress to animals and may decrease their ability to tolerate environmental extremes.

Treatment of hypothermia involves warmth, nutrition, and correction of underlying problems (e.g. milk supplements for crias whose dam is not lactating). Critical hypothermia occurs when core body temperature drops below 90 F. Consider the following treatments:

1. **Protection.** Get the animal into a well-insulated, preferably heated area.

2. **Warmth.** Wrap the animal in heated blankets. Using a heat lamp in a cold stall can be detrimental because the direct heat causes dilation of the surface blood vessels, which can exacerbate heat loss. By incubating the animal in a warm blanket, heat loss in prevented.

3. **Time.** Avoid heating too rapidly. Warming a critically cold animal up too quickly can cause as much harm as the hypothermia because of altered blood flow and liberation of potassium and organic acids that built up during the period of poor blood flow caused by hypothermia. These can cause the heart to stop!

4. **Energy.** Intravenous administration of electrolytes and glucose are most useful. If an IV line is not available, glucose or other carbohydrate syrups (e.g. honey, fructose, and maple syrup) may be fed orally or may be inserted into the rectum. Yes, that's right! Camelids can absorb glucose from the rectum if there is adequate blood flow. All liquid supplements should be warmed to approximately 95 to 100 F.

5. **Oxygen.** Always a useful supplement to debilitated animals, but particularly useful to critically hypothermic animals.

6. **Steroids.** This is controversial because of camelids' sensitivity to glucocorticoids. Our research suggests that dexamethasone should not be used in camelids. Prednisone type steroids may be safely used for short periods at modest dosages (e.g. not exceeding 1 mg/kg twice daily for 2 days).

7. **Ulcers.** I recommend prophylactic use of anti-ulcer medications for high-risk camelids. I prefer omeprazole (2 to 4 mg/kg, orally, once or twice daily).

8. **Nutrition.** Encourage the camelid to eat itself back to health.

9. **Stress.** Companion animals are always welcome! Treat any underlying disease, parasites, etc.

10. **Recovery.** The effects of damage from hypothermia may not be fully realized for a day or two. These animals must be kept under constant vigilance for 3 to 5 days to be sure other complications will not be suffered (e.g. diarrhea, depression, etc.).

Although heat stress is of great concern to camelids residing in North America, cold stress is equally important. Forethought and preparation will help you keep your llamas and alpacas from being caught with their fur coat down!

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FEB. 5th – 7th, 2027

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Ceres, CA

You'll love the venue!



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Judge: Amanda Wick, Washington

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Self-penning or Stalls (limited number)
Pack Courses will be outside on a Equine Trail Course (weather permitting)
Llama & Alpaca Best in Show
Special Price Packages
And remember, it's a NO GROOM show!

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Stonehenge Llama Ranch



Margaret & Ralph Drew
Vacaville, California

2025-26 Sierra 4H
Llama Project











Thank you to all those in the llama community who support these youth as they work with their animals. Thank you, LANA BOD especially, for being kid focused.



Cali – a thousand thank you's for all that you do and for stepping in
Greg – we appreciate you trusting us with your ccara treasures



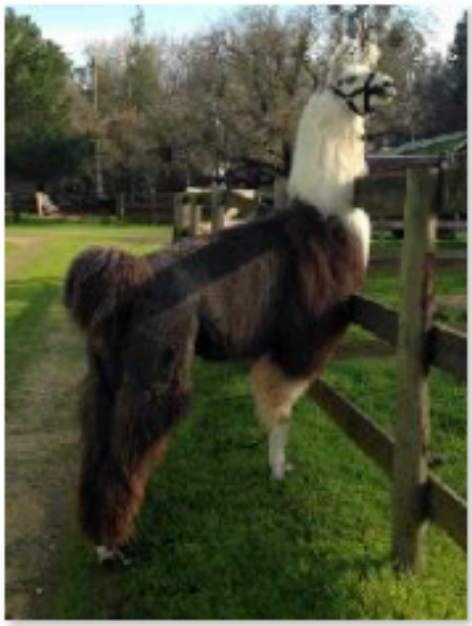






LAMARAH

Wilton, California
Kathy Nichols





Minimum Standards of Care for Llamas and Alpacas

Minimum Standards of Care are mandatory to llama and alpaca survival and humane treatment. These are the most basic requirements that all llamas and alpacas must have for physical well-being and, as such, define minimum requirements for animal control officers and government officials investigating questionable llama and alpaca care situations.

1. **WATER**: Animals should have continuous access to potable drinking water.

2. **NUTRITIONAL**: Animals should have nourishment adequate to sustain life and health.

3. **SHELTER**: Animals should have natural or man-made shelter that enables them to find relief from extreme weather conditions. The sheltered area must allow for the ability to stand, lie down, rest and reasonably move about.

4. **MOBILITY**: Animals should have a living area through which they can move freely and exercise independently

5. **NEGLECT**: Animals should have a physical appearance free from signs of serious neglect. Signs of serious neglect may include such things as crippled ambulation due to severely curled toenails, ingrown halters, or living conditions not meeting the minimums listed above.

6. **SAFETY**: Animals should be reasonably safeguarded from injury or death within their defined living environment and/or when traveling.

7. **CRUELTY**: Animals should be reasonably safeguarded from cruel treatment and actions that endanger life or health or cause avoidable suffering.

8. **SOCIALIZING**: Llamas and alpacas are herd animals and should not live alone without a companion animal. A cria (a baby llama or alpaca under six months) should not be removed or apart from other llamas or alpacas.

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Standards of Care Committees, June 2005
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LANA's Emergency Wallet Card
Next of Kin Card & Live Animal Alert

Edited from an article by Cris Jennings

In 1996, LAMA Lifeline was created. It was apparent that rescue was but one role Lifeline needed to include in their new program. Although Lifeline consciously structured itself to respond to llama needs, Lifeline volunteers encountered llama rescue situations where other animals (i.e.: goats, sheep, cats, pics, and geese) came into play. To the owner needing Lifeline's assistance, these animals' welfare was every bit as important as the llamas. Lifeline learned early on, when one type of animal on a ranch is jeopardized by a ranch emergency, all the animals may all be at risk.

Many of the llama rescue situations Lifeline has been involved with began with some sort of human emergency. Having a plan in place for llama/other animal care in case of emergency allowed owner input and control during the chaos of crisis. Real life crisis, health emergencies and death do happen to people all of the time. Individuals prepare for these events by making wills/living trusts, medical powers of attorney, and dutifully paying insurance premiums; some even insure their llamas. Lifeline realized there was generally nothing in place to ensure basic everyday needs were met (food, water and animal care) if the owners were suddenly out of the picture and unable to provide or direct ranch coverage during an emergency situation. In response to this need in the llama community, LANA developed an emergency notification card that links Next of Kin contacts with animal care contacts.

The hard facts of life are that no one can predict when a tragedy may strike and human crisis can generate significant chaos to create animal emergencies. Thoughtful preplanning can prevent putting animals at risk and avoid compounding an already difficult situation. The NOK/Live Animal Alert Card is but one practical application of LANA's commitment to the community, the well being of llamas and Lifeline's consulting, networking, education philosophy.

LANA was contacted in December 2024, and asked if LANA still had the NOK cards available. The Board of Directors agreed to create an updated card and make it available to anyone. Please feel free to print this and share with others.

Llama Association of North America
Next of Kin / Live Animal Alert

Name _____

Address _____

_____

Phone(s) _____

Email _____

If I am incapacitated or die, please contact those listed on the reverse side of this card.

PLEASE ENSURE SOMEONE WILL BE RESPONSIBLE FOR
IMMEDIATE FOOD AND WATER NEEDS OF MY ANIMALS.

Next of Kin Contacts

Name: _____

Relationship: _____ ph_____

Name: _____

Relationship: _____ ph_____

Animal Care Contacts

Name: _____

Relationship: _____ ph_____

Name: _____

Relationship: _____ ph_____

____ # Llamas ____ # Cats ____ # Sheep ____ # Equine
____# Alpacas ____ # Dogs ____ # Goats ____ # Other

FOLD HERE

Llama Association of North America

Website: www.lanainfo.org Email: lanaquestions@gmail.com



2026 Membership and Donations

Membership: Jan. 1 – Dec. 31

Please send all completed applications and checks (made out to LANA) to:

LANA, c/o Joy Pedroni
3966 Estate Drive Vacaville, CA 95688

LANA MISSION STATEMENT

ESTABLISHED in 1981, the Llama Association of North America (LANA), serves the camelid community by sponsoring medical research specific to llamas and alpacas; providing current and accurate information about camelid health and care; advocating for pro-camelid legislation and access to public lands; encouraging, educating and mentoring camelid enthusiasts of all ages in their interactions with camelids; supporting rescue for camelids in distress; and hosting a variety of activities including youth programs, hiking trips, shows, parades, fiber clinics, educational events and more.



Your Name:

Your Ranch Name:

Address:

Email:

Phone number(s):

Website:



MEMBERSHIP & Donation OPTIONS

See second page for Descriptions

Membership options:	Fees:	Your choices:
Friend of LANA	$250	
LANA Member	$40	
New LANA Member	$25	
Youth (19 and under)	$20	
Youth Club	$35	
Donor: LANA Lama Lifeline		
Donor: Youth programs		
Donor: Gen. Fund		
	TOTAL:	

LANA Membership, Sponsorship, & Donation Opportunities

2026

Friend of LANA **A year-long sponsorship** **$250**	Discounts for show entries*; 50% fees for clinics & camping; free vendor space at LANA-sponsored events and shows; recognition and ads (website, all newsletters, show programs, and events); US Mailings from LANA; 1 vote per membership for LANA elections; support of your association and its mission
LANA Member **$40**	Discounts for show entries*, clinics & camping; listing on LANA website; US mailings from LANA; 1 vote per membership for LANA elections; support of your association and its mission
***New* LANA Member** **$25**	Discounted membership fee as a welcome to LANA for first-time members with all the benefits of membership as outlined above for a LANA member: discounts for show entries*, clinics & camping; US mailings from LANA; 1 vote per membership for LANA elections
Youth **(19 and under)** **$20**	Discounted membership fee to youth; discounts for show entries*, clinics & camping; US mailings from LANA specifically for youth events and opportunities; and support for your association and its mission
Youth Club **$35**	Group membership for established youth clubs (4H, FFA, etc.) for which each club youth receives discounts for show entries*, clinics and camping; US mailings from LANA; 1 vote for a designated adult; & support of the association's mission
Donation to LANA Lama Lifeline	Lifeline saves camelids in housing crisis. Funds go toward feed, vet care, transportation, and other rescue costs. The LANA Lifeline Committee responds to emergencies and works with other agencies to remove animals when necessary and rehouse them safely.
Donation to Youth Programs	LANA Youth programs include youth only shows, youth classes at shows at discounted rates, specialized clinics for youth, and specific awards for youth.
Donor to General Fund	LANA funds are used to sanction and provide resources for shows; purchase awards; and support clinics, camping trips, parades, etc

Please note: *California State Fair is excluded from any benefits as LANA serves as a host for the show only and is not a sponsor.*