

SEPTEMBER 2024

WASHINGTON BRANCH AALAS



SAVE THE DATE!

Manager's Round Table
Virtual

Thursday, September 26th @ 12pm

Technician round table at Allentown!
Free lunch and tour (not of Animal Facility)
Monday, September 23rd, 12-1:30pm.

RSVP [Here](#)

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75TH NATIONAL MEETING
NOVEMBER 3 - 7 | NASHVILLE, TN

CATCHING UP WITH WBAALAS

Volunteers Always Needed!



There are a lot of obvious benefits to volunteering with WBAALAS —a sense of accomplishment, giving back to the LAS community, gaining perspective, and meeting new people. But did you know that volunteering is a **RESUME BOOSTER**? In these times of slim budgets and limited promotions, volunteering with WBAALAS offers you the opportunity to build transferrable skills!

Here are 3 reasons volunteering with WBAALAS is a smart career move:

Develop new skills or sharpen existing ones. Volunteering can be a way to get training and practice in areas your current role doesn't provide.

- Project management: organizing events or fundraising efforts are highly desirable skills
- Communication skills: consistently ranked in the top ten desirable skills by employer surveys
- Managing a team: many projects require a group effort, and a leader to coordinate it
- Accounting skills: familiarity with accounting enables you to manage at higher levels in a company

Develop professional relationships. You never know who you'll meet volunteering with WBAALAS. Volunteering helps you develop new networks, through which you will hear about job openings, training opportunities, and networking events.

Add experience. Volunteer experience is professional experience and it belongs on your resume. Using your time to gain new skills and help your professional community highlights your willingness to jump in, learn new things, and do more.

Visit <http://www.wbaalas.org/contact/> and inquire about any positions on the upcoming ballot to learn more.

CATCHING UP WITH WBAALAS

Volunteers Always Needed!

The following Elected positions will be available for the 2025 Year



President-Elect

- 3 year total commitment
- 1st Year as President Elect where you learn from the President on what and how to do President role.
- 2nd Year serve as President: run board meetings, manage annual events, provide leadership to organization
- 3rd year as Past-President: provide current president with mentorship regarding the President position, help plan events, in the event that the President elect and president are unavailable, run meeting.



Secretary

- 2 year term
- Approx. 2-10 hours a month
- Keep membership records
- Write board meeting minutes and upload to website
- Send and receive official branch electronic communication
- Help plan events
- Vote on agenda items



Board Member 1 & 3

- 2 year term
- Approx. 1-3 hours a month
- Attend board meetings and be a voice of the membership
- Help plan events
- Vote on agenda items
- 2 positions will be open

CATCHING UP WITH WBAALAS

Volunteers Always Needed!

Don't have the ability to commit to an elected position? Check out these other volunteer opportunities:

Committee Positions:

- Program committee: Helps plan all branch sponsored meetings and activities (time commitment varies on activities).
- Newsletter committee: Disseminate information about the national, regional and local AALAS organizational affairs as well as any other pertinent information to the members via a newsletter. (10+ hours a month).
- Social media: Help update/post on WBAALAS Facebook and LinkedIn accounts.
- Nominations and Elections Committee: Solicit nominations, give instructions on voting in the elections, tally votes, give results to secretary.
- Awards Committee: Solicit nominations for each award and submit names of winners. Ordering award plaques.
- Membership committee: prepare reports of membership to the board of directors, maintain membership list, reports to secretary.
- Management Information System Committee: Maintaining and updating the branch website and email accounts.
- Ad Hoc: occasionally we will be in need of other help, such as setting up or cleaning up after events, or someone to assist with registration/sign in, placing fliers etc.



TEAMWORK

Together Each Achieves More

CATCHING UP WITH WBAALAS

Bette J. Varnam and Ron Orta award

Top Right: They, in addition to being an incredibly kind person, is a knowledgeable and hardworking employee who is an asset to everyone around them from their coworkers to the animals under their care. They are thorough, capable, and never without a smile upon their face. Through times of lean staffing, supply issues, and other challenges, this person continues to show up every day to give 100% for the animals and their team members.



Bottom Right: WBAALAS President-Elect They have been instrumental for the Washington Branch. Taking on the role of going through and updating WBAALAS bylaws, as well as being an integral part of the District 8 planning committee, including running a workshop.

Ancare *Material Handling*

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Want to know more, and aren't afraid to ask?
Contact us at 516-781-0755/800-645-6379 or
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Getting to the Root of The Problem...How to Maximize Swine Environmental Enrichment Opportunities in the Laboratory Animal Setting

By Fernando De La Garza ALAT, Dr. Charles Tyler Long DVM, DACLAM, DABT, and Dr. Coralie Zegre Cannon DVM, DACLAM

Introduction

Swine rooting refers to the natural behavior of pigs to root or dig in soil with their snouts in search of food, roots, insects, and other edible items. This behavior is deeply ingrained in the natural instincts of swine and is an important part of their foraging and feeding activities. Given the significance of rooting, providing opportunities for swine to engage in this behavior is an important husbandry consideration. Whether through access to exercise hallways, toys, or other enrichment opportunities, allowing swine to root is an important aspect of promoting their overall welfare. These activities also decrease stress and lead to better research outcomes. It supports compliance with the USDA Animal Welfare Act¹ and The Guide for the Care and Use of Laboratory Animals² regulations and guidelines.

The Becton Dickinson (BD) Laboratory Animal Research Center of Excellence is committed to providing proactive and novel environmental enrichment and behavioral management opportunities to support animal welfare. All work described in the article has been approved by the BD IACUC. We work extensively with Yorkshire swine due to the research model requirements in approved IACUC protocols. The Yorkshire swine body weight range is between 30-100 kg, which helps to support human translation of medical device research and development. Our program also works with miniature swine when applicable. This publication will describe the environmental enrichment methodologies developed in our program to promote natural swine behaviors including rooting.

Materials and Methods

Rooting/Foraging Tubs (Tactile, Scent)

The program has focused on utilizing materials that are readily available. Rubbermaid® 50-gallon stock tanks are a versatile and practical way to provide environmental enrichment stimulation for all large animal models including swine and sheep. There are multiple applications to using stock tanks that will promote enrichment and behavior management in large animals, especially swine (Figures 1, 2, and 3). Rooting/Foraging tubs are one of the most preferred applications for swine to perform naturalistic instinctive behaviors.

Materials needed:

- Rubbermaid® 50-gal stock tank – Home Depot
- Rain Forest 3"-5" river rocks – Home Depot
- Timothy Hay or Nepco Pine Shavings
- Rubber-Cal® mat or other type of rubber mats
- Enrichment toys (Jingle balls®, KONGs®, plastic balls)
- Scented treats (Cinnamon Toast Crunch®, trail mix, marshmallows) or daily feed ration



Figure 1. Swine rooting/foraging in tubs.



Figure 2. Swine being raked to mimic scratching and to establish human-animal bonding.

CATCHING UP WITH LAS Pro



Figure 3. Rock rooting tub.

1. Place rubber mat in the bottom of the stock tank to minimize slipping.
2. Pile rocks inside the stock tank to create the foraging area.
3. Spread hay or shavings to fill the tub.
4. Scatter scented treats or daily feed over the rocks/hay to encourage the pigs to explore, forage, and root.
5. Observe the swine as they interact with the rocks/hay, ensuring that they are doing so safely and without signs of stress. This allows veterinarians and technicians to conduct physical exams and perform behavioral assessments while the pigs play.

Puzzle Feeders

Swine puzzle feeders are designed to provide mental stimulation and enrichment for pigs by making them work for their food/treats, which will reduce boredom and encourage natural foraging behaviors. Here are a couple of ideas for DIY swine puzzle feeders that you can create for your pigs.

Materials Needed

- 2.5-gal Pan Feeder bowl (Tuff Stuff Products)
- Stainless steel chain (long enough to reach across the feed bowl)
- 2-3 Bio-Serv Jingle Balls™ (or any kind of ball with holes in it)
- Stainless steel carabiner clip

1. Drill 1 hole on each side of the plastic feed bowl. The holes should be large enough for the chain to slide through each.
2. String the chain through 3 Jingle Balls and out of each hole, securing with clips (Figure 4).
3. Ensure that the size of the enrichment device is appropriate for the size of pig using it, to prevent them from getting stuck or injured while utilizing it.
4. Fill bowl with daily ration or scented treats to prolong eating and prevent ingurgitation.



Figure 4. Large animal puzzle feeders.

CATCHING UP WITH LAS Pro



Figure 5. Frozen Prang® or Gatorade® blocks.

Prang® Ice blocks (Taste, Scent)

Creating ice blocks for pig enrichment is a great way to provide entertainment and mental stimulation for pigs (Figure 5). Prang® (bio-serv) and Gatorade® ice blocks are an essential part of our enrichment program. Frozen blocks may be provided to animals during pre-anesthetic fasting periods to provide activity and distraction. It also ensures the swine are well hydrated and receiving electrolyte supplementation. Swine also receive Prang® popsicles immediately after arrival into the vivarium to connect a positive reward with their new environment. Here is a simple guide on how we create our ice blocks.

Materials needed:

- Silicone Molds for specific cube size, or ice cube trays
 - 1 gallon pitcher
 - Powdered Gatorade® or Prang®
 - Certified Prang® for Good Laboratory Practices (GLP) studies
 - Freezer Space
1. Choose appropriately sized ice tray or silicone mold that fits your needs and that can store in your freezer space.
 2. Fill your pitcher with 1 gallon of water and 4 scoops of Gatorade® (280 g) or Prang® (120 g).
 3. Pour liquid into mold (you can also drop in some pig-friendly fruits and vegetables in the ice block molds).
 4. For added enrichment you can freeze chains or other small toys (KONGs®) in the ice blocks, ensuring the items are pig safe.
 5. Place the molds in the freezer and let it freeze completely. This may take several hours or overnight depending on the size of mold.
 6. Once the blocks are frozen solid, remove the container from the freezer. You can run warm water on the outside of the container to help release the ice blocks.
 7. Place ice block in animal enclosure and monitor the pigs while they interact with it. Ensure they are safe and enjoying the enrichment.

Piggy Picasso (Taste, Scent)

Creating a Piggy Picasso can be a fun and rewarding activity and allows team members to bond with their animal heroes while also expressing their creativity (Figure 6). Here are some steps to guide you through the process.

Materials Needed:

- Canvas sheets
 - Non-Toxic pet-safe paint (Shuttle Art Acrylic Paint)
 - Wax or parchment paper
 - Resealable plastic bag
 - Peanut butter
 - Scented treats (Cinnamon Toast Crunch®, trail mix)
1. Choose a canvas sheet of your choice, ensuring the canvas will fit into the resealable bag.
 2. Select the colors of paint that you would like and pour them over the entire canvas.
 3. Place a sheet of wax paper over the paint covering the entire canvas.
 4. Insert the covered canvas into a plastic resealable bag.
 5. Smear peanut butter over the entire bag, you can also crush up scented treats and sprinkle them onto the peanut butter for an added treat.
 6. Place the bagged canvas in the pig enclosure or play area.
 7. Feel free to sit with the animal and encourage the pig to interact with the painting.
 8. Sprinkle additional treats to guide their movements and keep them engaged and inspired!
 9. Once the pig has eaten all the peanut butter, remove the canvas from the bag.
 10. Peel off the wax paper sheet from the canvas and reveal your masterpiece!
 11. Let the paint dry completely before displaying or framing the artwork.

This activity is about having fun and creating a special memory and gratitude for your laboratory animal hero.

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Figure 5. Frozen Prang® or Gatorade® blocks.

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Figure 6. One of our animal heroes making a unique Piggy Picasso!



Figure 7. Raking provides animal care staff time to bond with the patients.

Raking (Tactile)

Pigs have natural behaviors related to scratching and grooming that are essential for their well-being and comfort. Scratching pigs with rakes can be a way to provide them with physical stimulation and relief from itching or discomfort (Figure 7).

Materials Needed:

- Handheld plastic or stainless-steel rake, able to sanitize. (Amazon: Garden Guru Stainless Steel Hand Rake Soil Tiller)
- Choose a rake with blunt or rounded tips rather than sharp or pointed tips to prevent injury to the pig skin.

1. Approach the pig calmly: pigs can be sensitive animals, so approach them calmly and gently when using the rake to scratch them. Let the pig sniff and investigate the rake before attempting to scratch them.
2. Start with light scratching: begin by gently scratching the pig's back or sides with the rake to see how they respond. Pay attention to their body language to ensure they are comfortable and enjoying the scratching.
3. Avoid sensitive areas: be cautious around the pig's head, ears, belly, and other sensitive areas.
4. Feeding, foraging, or rooting exercises are also great times to perform raking. Animal holding rooms may have Nepco Pine Shavings to further promote rooting opportunities.

CATCHING UP WITH LAS Pro



Figure 8. Enrichment hallway.

Exercise Hallway

Our exercise hallway is designed to encourage our pigs to move around, explore and engage in natural behaviors like rooting and running. Such space may include obstacles, rooting/foraging opportunities, social enrichment, and wallowing in water, that help stimulate the pigs to exercise natural instinctive behaviors (Figure 8).

- Measures: 70' x 6' (450 sq ft).
- Swine have access to the exercise hallway twice a day during cage cleaning.
- Hallway is washed down daily after use and is sanitized every 14 days or as needed to ensure biosecurity and to decrease stress.
- Enrichment activities and post anesthetic recoveries may be performed in the hallway.
- Helps BD share the Laboratory Animal Research program with visitors to "Tell Our Story First" and build awareness.

Environmental Enrichment Kitchen and Enrichment Freezer

Our environmental enrichment kitchen is the designated area where enrichment items and activities are prepared, stored, and managed for our animal care program (Figures 9 and 10). The kitchen may also serve as a central location for planning, evaluating enrichment toys, and ensuring appropriate and engaging enrichment opportunities. Enrichment treats are often used to stimulate animals mentally and physically, providing them with opportunities for play and engagement. All our enrichment treats are labeled with a received date and expiration date (14 days after receive date).



Figure 9. Dedicated enrichment kitchen.



Figure 10. Enrichment freezer.

CATCHING UP WITH LAS Pro

Discussion

The behavior management refinements have helped to develop a culture of care and welfare at BD. The swine patient models directly benefit from the dedicated program of animal welfare. Consistent communication of benefits are delivered to management to help grow awareness and support. Key benefits observed are enhanced animal care team health and satisfaction, decreased time associated with daily cleaning and patient preparation, positive perception by the institution regarding use of animals in biomedical research and strong engagement by the team dedicated to continuous improvement. Frequent updates to the IACUC have also helped to establish the program support and institutional engagement.

The environmental enrichment program directly enhances sensory stimulation for the swine patient models. The olfactory sensory system is stimulated using cinnamon and other treats in multiple rooting opportunities. The use of frozen Prang® and Gatorade® has helped to stimulate taste while ensuring patients are well hydrated and active while waiting for approved anesthetic events. The tactile sensation of rooting is also supported by a variety of these processes. The use of wood shavings in the animal's home cage supports rooting by hiding desirable food treats within bedding and also keeps the animals clean. In addition, the raking directly replicates the swine's tactile need to scratch and desire to rub against items. Animal care staff can sign up for dedicated 'raking time' which serves a two-fold purpose--time for human enrichment and observation of animals in their home environment.

Vivarium space also provides the opportunity to use these approaches across singly housed and socially housed animals. Animal housing space can be manipulated to support the rooting tubs or Prang® popsicles. Animals on IACUC-approved protocols can still receive dedicated enrichment across cohorts within their home environment.

The dedicated program helps patients to quickly build caretaker trust which leads to better animal care oversight. During each allotted play session caretakers continuously monitor the swine to determine if they are engaged in the activity or if they prefer not to participate. If they show lack of interest in one activity, the caretakers engage them in another type of enrichment session and/or allow swine to opt out and return to their home cage environment. Activities and treats are rotated daily to provide variety and determine patient preferences. Eyes on the animals during raking or rooting observations leads to effective animal wellbeing assessments and veterinary care. It also enables the patient models to acclimate to their handlers more quickly, resulting in reduced stress because routines are

more predictable, and interactions are designed to be positive experiences. This allows the animals a sense of control over their home environment.

The Piggy Picasso projects have also helped BD build a program of openness, transparency, and mutual respect for laboratory animal research and our animal heroes the patient models. It helps build a sense of appreciation and value for research teams to have creative paintings to honor their laboratory animal heroes' contributions. BD leadership has paintings displayed in their offices and in conference rooms which tells "Our Story First". They also have been donated to the National American Association of Laboratory Animal Science (AALAS) meeting and auction!

In conclusion, providing swine patient models opportunities to display natural behaviors such as rooting and foraging behaviors directly contributes to their overall well-being and mental stimulation. In addition, providing enrichment drives creativity, which allows for low cost positive benefits for animals. As noted, these items are all readily available and can easily be used with single housed or socially housed research animals.

Fernando De La Garza ALAT is a Behavior Management/In Vivo Project Specialist, Veterinary Medical Services at Becton, Dickinson and Company (BD) in Research Triangle Park, NC.

Charles Tyler Long DVM, DACLAM, DABT is a Senior Staff Clinical Veterinarian at Becton, Dickinson and Company (BD) in Research Triangle Park, NC.

Coralie Zegre Cannon DVM, DACLAM is the Corporate Director, Veterinary Medicine and Attending Veterinarian at Becton, Dickinson and Company (BD) in Research Triangle Park, NC.

REFERENCES

1. **Animal Welfare Act as Amended.** 2008. 7 USC §2131-2156
2. **Institute for Laboratory Animal Research.** 2011. Guide for the care and use of laboratory animals, 8th ed. Washington (DC): National Academies Press.

ADDITIONAL REFERENCES

- **De La Garza F, Cannon C.** 2020. Piggy See Piggy Do: A Swine Training Program Enhances Animal Welfare and Research Efficiency. *Laboratory Animal Science Professional* March 2020:54-57.
- **Wilkinson L, O'Malley C, Moreau E, Bryant T, Hutchinson B, Turner P.** 2023. Using Stakeholder Focus Groups to Refine the Care of Pigs Used in Research. *J Am Assoc Lab Anim Sci* 62:123-130.

LEARNING WITH WBAALAS

Washington Branch AALAS offers members access to **TWO** learning portals!



Learning Library
(AALAS)



Exam Prep Courses
(Kizer Learning)

The AALAS Learning Library provides training that is essential for technicians, veterinarians, managers, IACUC members, and investigators working with animals in a research or education setting.

Washington Branch AALAS is proud to be able to offer free access to the AALAS Learning Library to all Branch members!

Research, husbandry, and veterinary staff can earn continuing education credits to maintain certification and licensure (**up to 34 courses approved by AAVSB for RACE CEs**). Check out the over 238 courses available by downloading the [course catalog](#).

ALAT, LAT, and LATG Exam Prep Courses

We've partnered with Kizer Learning to offer free enrollment in their innovative exam prep courses.

Here's what makes them effective:

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WBAALAS SUMMER PICNIC

Golden Gardens Park, Seattle



CATCHING UP WITH AALAS

NATIONAL MEETING IS IN NASHVILLE, TN THIS YEAR!



Don't Miss Our 75th National Meeting

Registration and Housing for our National Meeting in Nashville, Tennessee is now open! The Preliminary Program is Available Online!

[>More Information Here](#)

AALAS National Meeting

Each fall since 1950, the American Association for Laboratory Animal Science has held its annual National Meeting. During the five days of the meeting, members and nonmembers come together to enjoy the workshops, lectures, poster sessions, and exhibits. The program is designed to have topics relevant to the entire membership. Exhibitors have an opportunity to interact with AALAS members from the academic community, research institutions, government organizations, and commercial companies. The AALAS National Meeting is the largest gathering in the world of professionals concerned with the production, care, and use of laboratory animals.

The 2024 AALAS National Meeting *Program Overview* can be found [here](#), and the *Preliminary Program* can be found [here](#).

[Click here to register for the AALAS National Meeting](#)

2024 National Meeting

November 3-7, 2024

Music City Center

201 Rep. John Lewis Way South

Nashville, TN 37203

Download the Music City Center Navigating App for guidance around the center. The app is available in the App Store or Google Play. Click [here](#) for more information.

CATCHING UP WITH AALAS

Episode 10 of the LAsT Word (an AALAS podcast)

Episode 010 | Dr. Megan Ellis, MS, DVM



THE LAST WORD: AN AALAS PODCAST
Episode 010 | Dr. Megan Ellis, MS, DVM

30↶

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libsyn

Aug 1, 2024



In Episode 10 of the LAsT Word (an AALAS podcast) we were joined by Dr. Megan Ellis, MS, DVM. Dr. Ellis is a Clinical Veterinarian in the Laboratory Animal Program at Purdue University. She recently published a paper entitled “Ammonia Accumulation as a Proxy to Determine Cage-change Frequency in Antelope Ground Squirrels” in JAALAS.

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