



# Recommendations for Interisland Ocean Transport of Livestock





# Core Values of Food Production

Safe

Healthy

Nutritious

Sustainable

Welfare of  
Animals

It is our job together to provide these core values for our food security and sustainability





# Learning Objectives

**Animal  
Welfare**

**Biosecurity**

**Environmental  
Protection**

**Personnel  
Safety**





# Transportation in Hawaii

- **Safety of people, animals, and the environment is the top priority in animal transportation**





# Transportation in Hawaii

- Good stockmanship is key in all aspects





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# ANIMAL WELFARE







# Preconditioning and Animal Selection

## General



- Preconditioning for destination
  - Animals should be prepared for destination environment
  - Animals should be vaccinated, de-wormed, etc.
- Selection of Animals for Shipping
  - Depressed, sick, or injured livestock should not be shipped
  - Young animals should be completely weaned
  - Feral or wild animals should not be shipped





# Preconditioning and Animal Selection

- Cattle, Sheep, and Goats
  - Weaned, castrated (if applicable), vaccinated, and treated for parasites (30 days prior)
  - Adjusted to future environment
  - Similar for llamas & alpacas
- Hogs
  - Group animals a few days before shipping to minimize fighting during shipment
  - Treat for internal and external parasites
- Horses
  - Horses should be halter-broke, accustomed to trailer transport, and well-tempered for confinement







# Prior to Shipping

- All animals being transported must be sent with a DC-44 form from Hawaii Department of Agriculture
  - DC-8 for sheep and goats and pigs to Kauai
- Form must be submitted to Hawaii Department of Agriculture within 10 days of transport

STATE OF HAWAII  
DEPARTMENT OF AGRICULTURE  
DIVISION OF ANIMAL INDUSTRY

16905 PERMIT TO SHIP

Date \_\_\_\_\_, 20\_\_\_\_

Shipper \_\_\_\_\_ Address \_\_\_\_\_

Consignee \_\_\_\_\_ Address \_\_\_\_\_

Carrier \_\_\_\_\_ Date of Shipment \_\_\_\_\_

No. & Description of Animals \_\_\_\_\_

Restrictions/Remarks \_\_\_\_\_

Signed \_\_\_\_\_  
DEPUTY STATE VETERINARIAN

DC-8 Form (sheep/goats)

DC-44  
Rev. 07/95

CERTIFICATE OF LIVESTOCK OWNERSHIP/ MOVEMENT 88251

A copy of this certificate must accompany all shipments of livestock and will be presented to any law enforcement officer of the state or agent of the Department of Agriculture upon request. False information or failure to comply may result in criminal prosecution as provided in Chapter 142, Hawaii Revised Statutes.

PLEASE PRINT

Owner/Seller \_\_\_\_\_ Buyer/Consignee \_\_\_\_\_

Origin of Shipment \_\_\_\_\_ Destination of Shipment \_\_\_\_\_

No. of Animals in Shipment: \_\_\_\_\_ Date of Shipment \_\_\_\_\_

Carrier \_\_\_\_\_

ADDITIONAL DESCRIPTION OF ANIMAL(S)  
(Breed, Color, Sex, Ear Tag or I.D. No., Etc.) or Comments \_\_\_\_\_

BRANDS/LOCATION ON ANIMAL

Reason for Shipment:  Sale  Slaughter  Show  Pasture  Feed Yard  Other

Signature of Owner / Seller \_\_\_\_\_ Address \_\_\_\_\_ Telephone Number \_\_\_\_\_

DISTRIBUTION: Original - Local DOA office or to Animal Industry Division, 99-941 Haliwa Valley Street, Aiea, HI 96701-5602.  
(Within ten days of shipment)  
Canary and Pink - Accessory shipment. (One copy shall be turned over to a law officer upon request.)  
Goldenrod - Owner / Seller

DC-44 Form (all livestock)





# Loading and Unloading



- Loading and unloading is the most stressful part of transportation for livestock
- Make sure there are no large gaps or major floor level changes from chutes or ramps to device
  - Rubber bumpers are recommended
- Low-stress handling techniques should be used
- Recommended that any personnel handling livestock complete a quality assurance training





# Loading and Unloading Swine

## Facilities:

- Avoid floor level changes or gaps
- Open windows or hang a light in the receiving area so swine do not have to move into a dark area

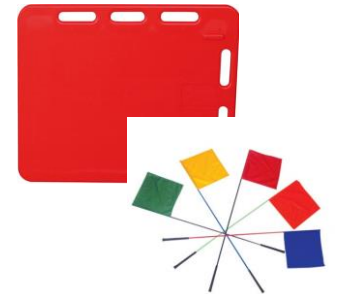


## Equipment:

- Sorting boards, rattle/shaker paddles, flags
- Avoid using electric prods

## Low-stress handling:

- Move market swine in groups of 3-5
- Ship pigs of similar size and production phase
  - Move sows and boars individually





# Loading and Unloading Cattle, Sheep, Goats

## Facilities:

- Destination should be well-lit
- Avoid shadows or extreme gradient changes
- Common systems: snake chute, bud-box, corrals

## Equipment:

- Flags, rattle paddles/shakers, horses/ATVs
- Avoid using electric prods

## Low-stress handling:

- Understand point of balance and flight zones
- Minimize vocalization and yelling

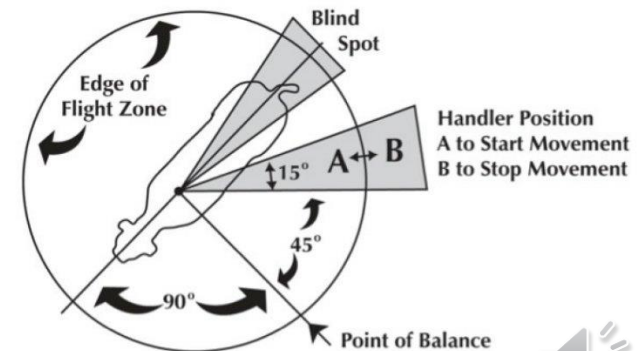


Figure 1. Flight zone  
Taken from "The Cattle Industry's Guidelines for the Care and Handling of Cattle", National Cattlemen's Beef Association







Have the right tools & equipment for the job

AW





# Transportation Space Requirements

## Swine

### INTERISLAND TRANSPORTATION SPACE REQUIREMENTS\* | SWINE

\*These space requirements only pertain to Hawaii interisland transportation and do not pertain to interstate shipping.

<b>AVG. BODY WEIGHT</b> <i>(lbs)</i>	<b>AREA PER ANIMAL</b> <i>(ft<sup>2</sup>)</i>	<b>HEIGHT</b> <i>(ALL SPECIES)</i>	<b>20' CONTAINER</b> <i>(max number to load)</i>	<b>40' CONTAINER</b> <i>(max number to load)</i>	<b>40'X2 DOUBLE DECKER</b> <i>(max number to load)</i>
50	1.8	Stand comfortably, ensure head clearance	87	174	276
100	2.8		57	115	182
150	3.5		45	90	143
200	4.2		38	76	120
250	5.1		31	63	99
300	6		27	53	84
350	6.6		24	49	77





# Transportation Space Requirements

## Sheep & Goats

### INTERISLAND TRANSPORTATION SPACE REQUIREMENTS\* | SHEEP & GOATS

\*These space requirements only pertain to Hawaii interisland transportation and do not pertain to interstate shipping.

<b>AVG. BODY WEIGHT</b> (lbs)	<b>AREA PER ANIMAL</b> (ft <sup>2</sup> )	<b>HEIGHT</b> (ALL SPECIES)	<b>20' CONTAINER</b> (max number to load)	<b>40' CONTAINER</b> (max number to load)	<b>40'X2 DOUBLE DECKER</b> (max number to load)
60	2.4	Stand comfortably, ensure head clearance	67	133	203
80	2.7		59	119	181
100	3		53	107	163
120	3.6		44	89	136







# Transportation Space Requirements

## Cattle

### Interisland Transportation Space Requirements\* | CATTLE

\*These space requirements only pertain to Hawaii interisland transportation and do not pertain to interstate shipping.

<b>AVG. BODY WEIGHT</b> (lbs)	<b>AREA PER ANIMAL</b> (ft <sup>2</sup> )	<b>HEIGHT</b> (ALL SPECIES)	<b>20' CONTAINER</b> (max number to load)	<b>40' CONTAINER</b> (max number to load)	<b>40'X2 DOUBLE DECKER</b> (max number to load)
400	7	Stand comfortably, ensure head clearance	23	46	70
500	8		20	40	61
600	9		18	36	54
800	11		15	29	Over height limit
1,000	14		11	23	Over height limit
1,200	15.5		10	21	Over height limit
1,500	19		8	17	Over height limit





# Transportation Space Requirements

## Horses

### Interisland Transportation Space Requirements\* | HORSES

\*These space requirements only pertain to Hawaii interisland transportation and do not pertain to interstate shipping.

<b>AVG. BODY WEIGHT</b> (lbs)	<b>AREA PER ANIMAL</b> (ft <sup>2</sup> )	<b>HEIGHT</b> (ALL SPECIES)	<b>20' CONTAINER</b> (max number to load)	<b>40' CONTAINER</b> (max number to load)	<b>40'X2 DOUBLE DECKER</b> (max number to load)
300-1100	20 (2.5 x 8.0 ft)	Stand comfortably, ensure head clearance	7	14	Over height limitation





# Feed and Water

## Multi-leg shipments

- If the final destination requires multiple stops, e.g. Hawaii > Oahu > Kauai, arrangements made by shipper to have animals checked
- Best practice: Container moved from pier and housed at appropriate isolation facility without contact with other animals. All to be arranged by shipper.
- Feed and water should be provided for animals for multi-leg shipments.





# Prepping & Inspecting Shipping Devices

- Inspect devices for structural integrity, rust, waterers and water lines, feed bin function (if applicable), window latches, door latches, gate hinges & latches, cleanliness
- Connect water lines for waterers (if equipped)
- Clean and add bedding



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# Prepping & Inspecting Shipping Devices

## General Shipping Device Guidelines:

- Trailers, 20 or 40' containers, and shipping pens
  - Must have 4-sides forklift pockets
- Must be leak proof up to at least 2"
- Bedding and nonslip
- Must be sturdy
- Should be escape-proof
- Must have some sort of water supply in case of transit delays





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# BIOSECURITY





# Biosecurity

- Definition: Procedures intended to protect humans or animals against disease or harmful agents
- Especially important for Hawaii
- Includes:
  - Diseases to animals
  - Diseases to plants
  - Invasive pests and plants







# General Recommendations

- Veterinary-Client-Patient-Relationship
- Do not ship sick or unthrifty animals
  - Fever and respiratory symptoms
- Know health history of origin and destination
- Vaccinate, de-worm, and treat animals >30 days before shipping (if applicable)
- Shipper should inform receiver of any uncompleted drug withdrawal periods
- Be. Clean.
  - Diseases and invasive pests spread through soil, manure, feed/forages, and equipment

BIO





# Diseases - Swine

- Swine should be alert and healthy
- Avoid spreading swine diseases interisland. Some islands are free of:
  - PRRS
  - PEDv
  - Circovirus
- Swine should be isolated for 30 days after arrival.
- Kauai is protected by HDOA quarantine so swine must test negative for PRRS before shipping.





# Diseases - Cattle

- When transporting cattle, be sure they are free of disease and healthy. The following are common diseases in cattle that should be monitored:
  - IBR, BVD, BLV (vaccines available)
  - Johne's
  - Trichomoniasis (venereal disease)
  - Internal & external parasites
- The producer and receiver/buyer should communicate about herd health practices prior to shipping

BIO





# Diseases - Equine

- When transporting horses, be sure they are free of disease and healthy. The following are common symptoms and diseases to monitor horses for:
  - Respiratory Disease
    - Discharge from nose, eyes
    - Coughing
  - Strangles
  - *Corynebacterium* (Pigeon Fever)





# Invasive Pests

- Inspect feed, forage, and equipment for the following invasive pests:
  - Two-lined spittlebug
  - Army worm
  - Various fungi





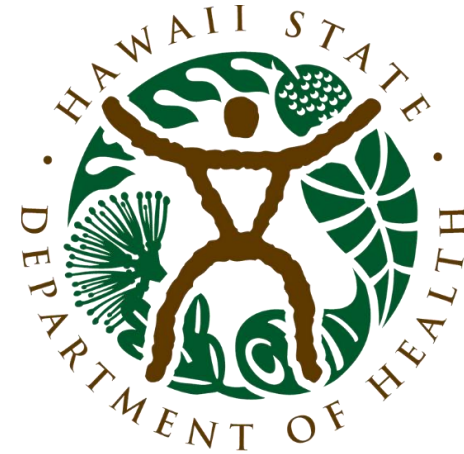
# ENVIRONMENTAL PROTECTION







# Clean Water Act



- Shippers must comply with Clean Water Act, US Environmental Protection Agency, Hawaii Dept of Health regulations, and the Young Brothers tariff







# Compliance Guidelines

- Animal waste must be removed from the pier and disposed of off-site by shipper
  - No water to be used
  - No discharge into ocean or at YB facility
- Shipper must provide cleaning equipment
- Shipping devices stored at YB facility must be thoroughly cleaned
  - Includes animal waste, bedding, and feed





# Compliance Guidelines

- Regulations on shipping or holding devices in relation to prevention of livestock waste discharge
- See “Interisland Shipping Standards Checklist”





# PERSONNEL SAFETY





# Personnel Safety

- It is recommended that any individual working with livestock be trained in the appropriate species quality assurance.
  - Beef Quality Assurance, Pork Quality Assurance, BQA/PQA Transportation, Sheep Quality Assurance, etc.
- Forklift safety when carrying a heavy load, ensure proper function of slide gates, ensure animals are calm prior to handling, and proper footwear when handling livestock.





# Trucking

## Loaded Cowtainers

- Make sure cowtainer is locked to the truck's chassis
- Remember that cowtainers have a higher center of gravity compared with standard shipping containers
- Cowtainers must be kept on level, hard surfaces
- Ensure jack-legs are on a solid surface if unhooking a loaded cowtainer
- Individuals trucking cattle are recommended to complete the BQA Transportation Certification





# Trucking

## Loaded Shipping Devices

- Shipping devices must be kept on level, hard surfaces
- Devices should be moved slowly and carefully, while following forklift best practices
- Concerns regarding shipping device integrity shipping device guidelines should be addressed prior to transit





# Thank you!

- HCC Transportation
  - <https://www.hicattle.org/who-we-are/leadership-committees/transportation>
- BQA
  - <https://www.bqa.org/beef-quality-assurance-certification>
- PQA Plus
  - <https://www.pork.org/certifications/pork-quality-assurance-plus/>

