

State of Hawai‘i Game Meat Processing Plan *Results Report*

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College of Tropical Agriculture and Human Resilience
University of Hawai'i at Mānoa

Outline

1. Introduction

2. Methods

- Survey Organization
- Data Collection
- Data Analysis

3. Results

- General and Demographic
- Food Distributors
- Hunters
- Slaughterhouse / Butchers

4. Discussion

5. Conclusion



Introduction

- In 2020, the State of Hawai‘i reported food insecurity is at 22%
 - Highest rate in Hawai‘i county at 31% (Stupplebeen, 2020)
- Distributors have shared more than 17.7 million meals in the 2024 fiscal year (Hawaii Food Bank Annual Report, 2024)
- Consumer Price Index for food increase by 4.2% from 2024 to 2025 (Bureau of Labor Statistics, 2025)



hawaiifoodbank.org

The State of Hawai‘i, under Act-054, has recognized the need to expand protein donation capacity to feed local under-resourced populations.



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Introduction

Mouflon Sheep Feral Sheep Mouflon-hybrid Sheep



Feral Pig



Black-tail Deer



Axis Deer



Feral Goat

- Seven legal-to-hunt game mammal species (Department of Land and Natural Resources)
- Estimated, 12 axis deer/mi² ~ 10,000 animals in Maui county (Swette Center, 2024)
- Heavy overpopulation of game mammals cause
 - Damage to private agricultural lands
 - Degradation of ecosystems
 - Reduced native species diversity (Swette Center, 2024)

<https://dlnr.hawaii.gov/recreation/hunting/mammal/>



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Introduction



Utah (H.B. 142)

- Licensed hunter
- Apparent good health
- Marked as “*not for sale*” and “*donated wild game meat*”

<https://wildlife.utah.gov/news/utah-wildlife-news/1394-three-bills-passed-in-2022-that-hunters-should-know-about.html>



Michigan (Hunters feeding Michigan Program)

- Drop-off to specific processors
- Report of harvest details

<https://www.michigan.gov/dnr/about/get-involved/hunters-feeding-michigan>

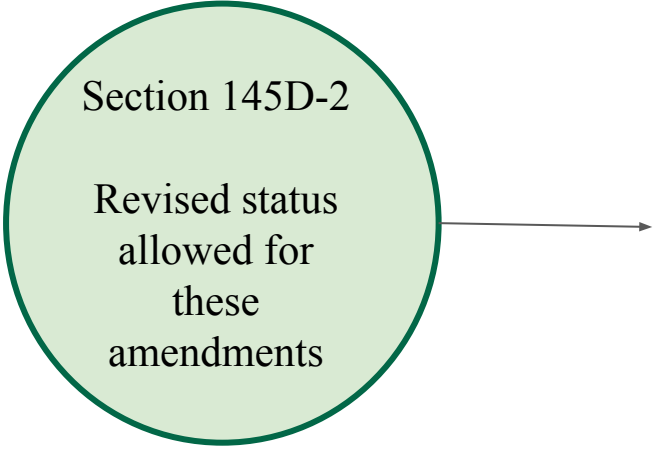


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Introduction

Section 145D-2

Revised status
allowed for
these
amendments



Donor Changes

- Anyone or any organization that donates food including butchers and meat processors (following food safety regulations)

Exceptions to liability

- Donating livestock or wild game meat if harvested and processed safely and believed fit for consumption.

Objective: To assess the feasibility of implementing game meat donation programs in Hawai‘i by gathering community feedback on current practices and identifying the support needed for hunters, distributors, and processors to provide wild meat to under-resourced communities.



Methods

Survey Organization

- Survey hosted on Qualtrics software (2025)
- The survey consisted of 75 questions, including both multiple-choice and open-ended items
 - Some questions had options to specify, allowing respondents to elaborate on their initial response
 - Some questions allowed respondents to “select all that apply”

Question Distribution

General and Demographic	Food Distributors	Hunters	Slaughterhouses/ Butchers
6	16	35	18



Methods

Data Collection

- To ensure privacy and confidentiality, responses were kept **anonymous**
- To allow for continuous monitoring and organized data reporting
 - Response data was downloaded weekly for two months and stored
- Open for nine (9) weeks

Survey Open

May 5th, 2025
(05/05/2025)

Downloaded every week

Survey Closed

July 7th, 2025
(07/05/2025)



Methods

Data Analysis

Subjective Data

- Thematic analysis and multiple rounds of coding
 - Preliminary coding
 - Code validation
 - Theme consolidation
- More than 1 theme was allowed per response
 - The total number of themes may not always equate to the total number of responses collected

Objective Data

- Reported as relative frequency
 - Divide the number of responses for each response option by the total number of responses to the question





Select all that apply



Further elaboration allowed

Results

General and Demographic

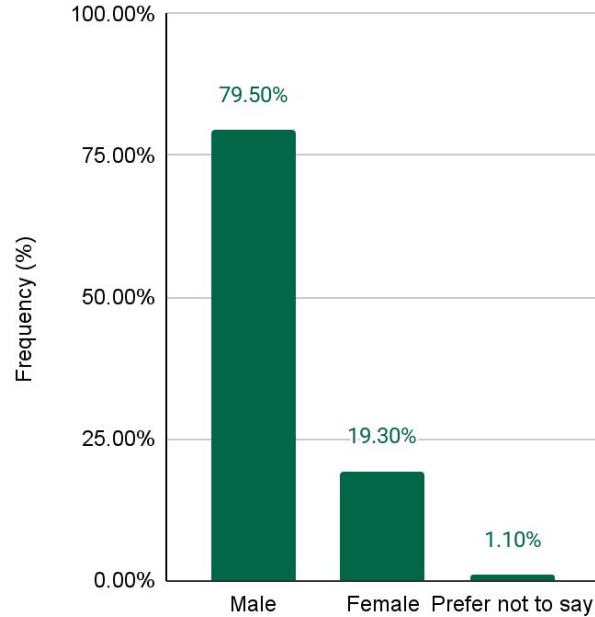
Respondents = 88



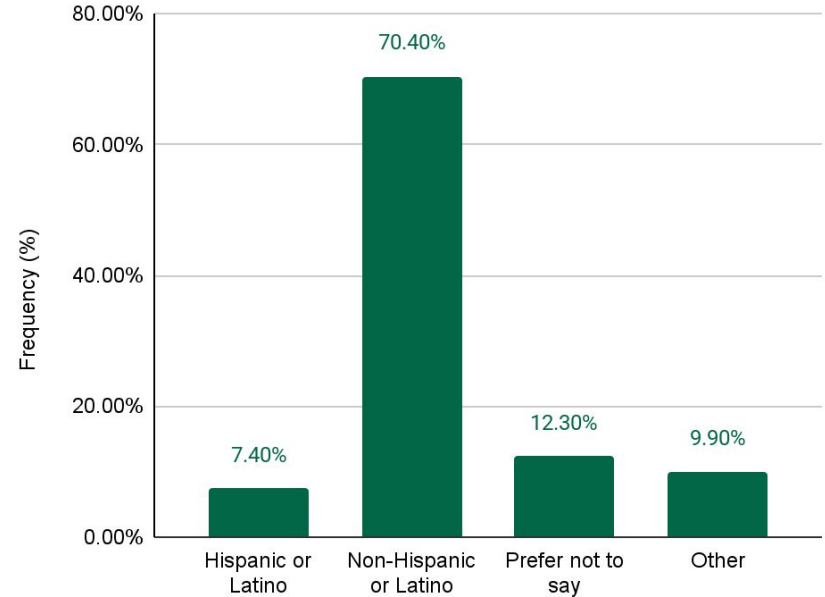
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Results - General and Demographic

Gender

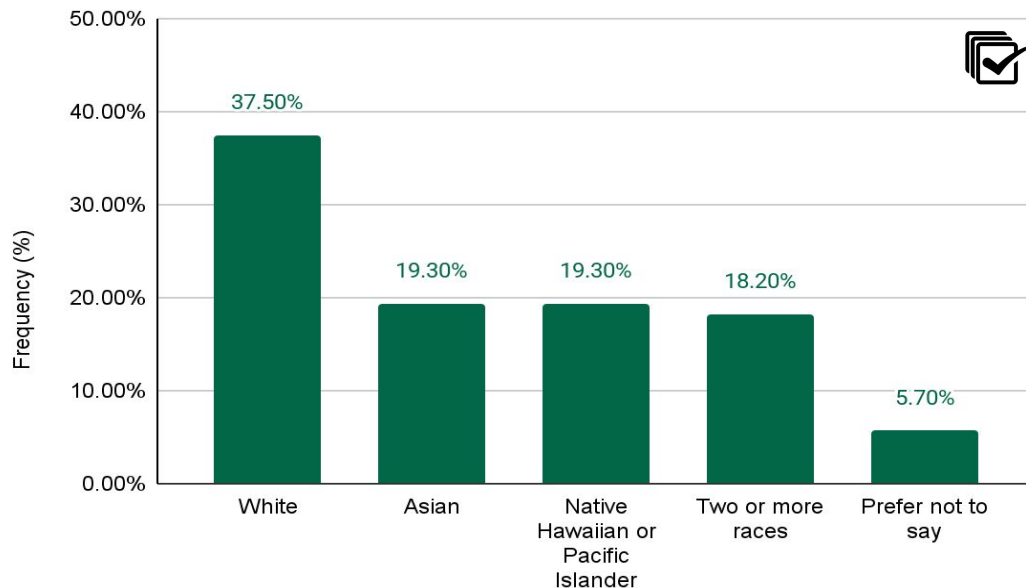


Ethnicity

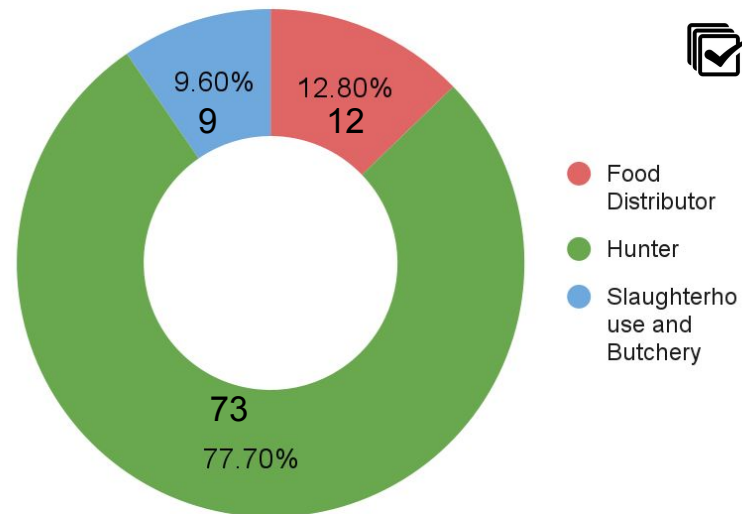


Results - General and Demographic

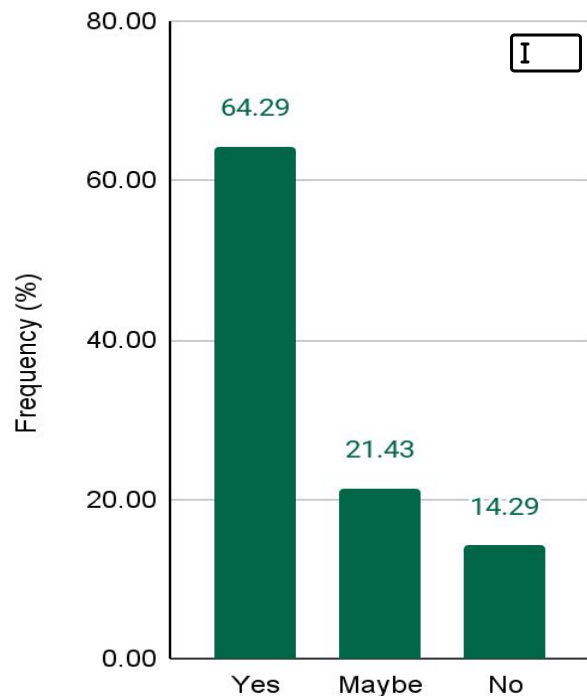
Race



Identified Status



Results - General and Demographic



Support for the state awarding contracts to companies already experienced in processing wild game for consumption.

Open response themes for those who responded “No”

Response Themes	Freq (%)
Uncertainty of processor capability	33.3
Request local company be awarded potential contracts	33.3
Origin of game mammals	16.7
Public impact	8.3
Regulatory Roadblock	8.3



Results - General and Demographic

Support the state can provide to process wild game meat for human consumption

I

Response Themes	Freq (%)
Increase processing capacity	22.22
Training and certification	15.87
Access to restricted land for hunting without landowner liability	9.52
Processing facility for personal dressing	7.94
Increased inspector availability	6.35
Compensation for harvested game	6.35
Game management plan	6.35
Unspecified monetary support	4.76

Response Themes	Freq (%)
Regulation changes	4.76
Increase waste disposal areas	3.17
Direct hunter to food bank program	3.17
Opposes commercialization of wild game	3.17
Allow “at home” processed animals to be consumed/sold	3.17
Regulated hunts	1.59
Drop-off for live trapped animal	1.59





Select all that apply



Further elaboration allowed

Results

Food Distributors

Respondents = 12

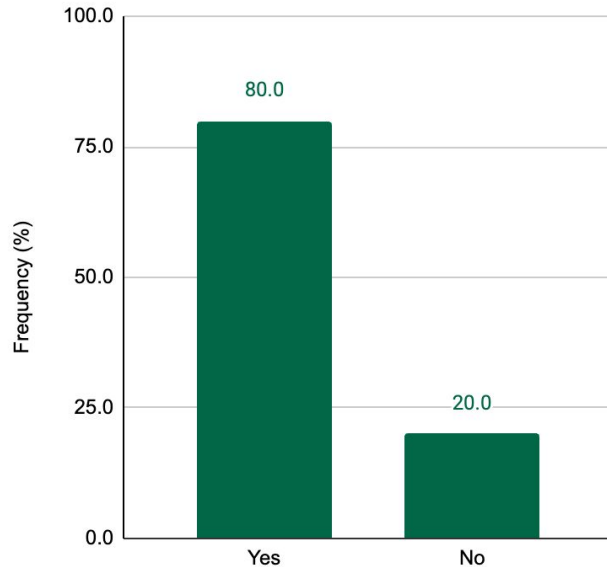


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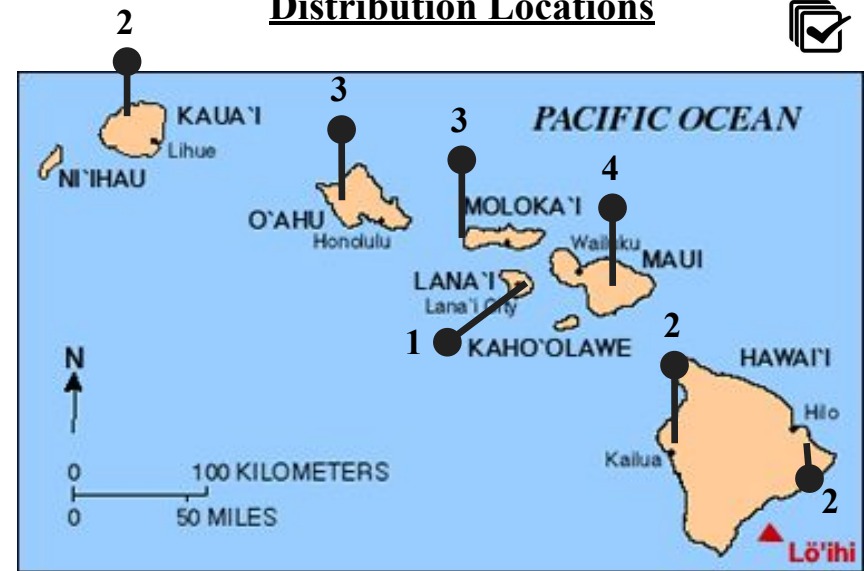
Results - Food Distributors

Characteristics

Interest in the proposed program



Distribution Locations



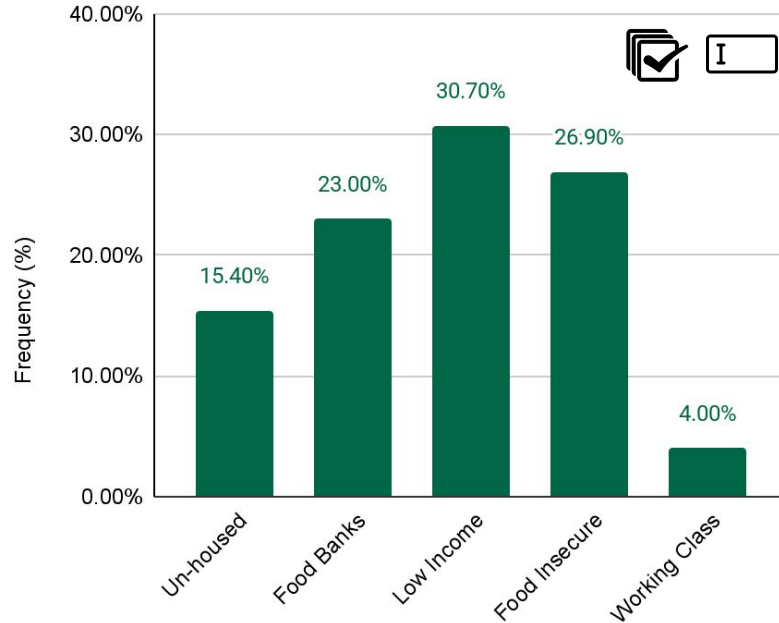
<https://geology.com/usgs/loihi-seamount/>



Results - Food Distributors

Characteristics

Communities Served



Capacity for Distribution

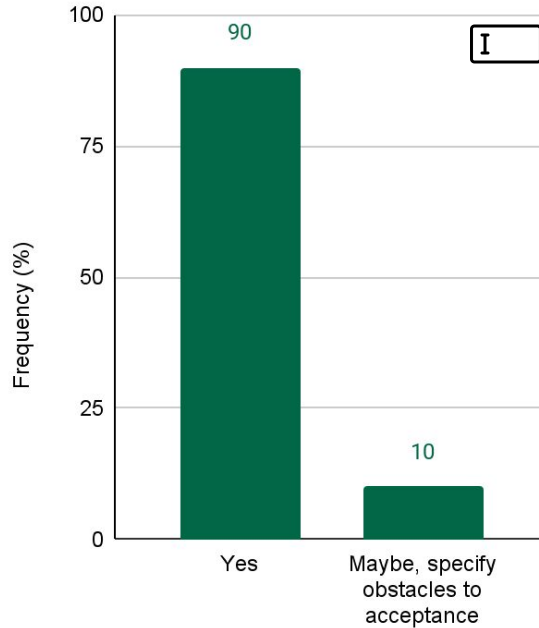
Annual distribution capacity for wild game in pounds	Average	95,800 lbs	I
	Minimum	100 lbs	
	Maximum	500,000 lbs	
	Total Capacity	670,600 lbs	
Number of people served by food distribution organizations annually	Average	74,716	I
	Minimum	15	
	Maximum	1,000,000	
	Total Served	1,223,015	



Results - Food Distributors

Protein Donation Trends

Community acceptance of game meat



One respondent selected “Maybe”:

- *Community skepticism, an education program to alleviate - 100%*

Ideal packaging characteristics for wild game distribution

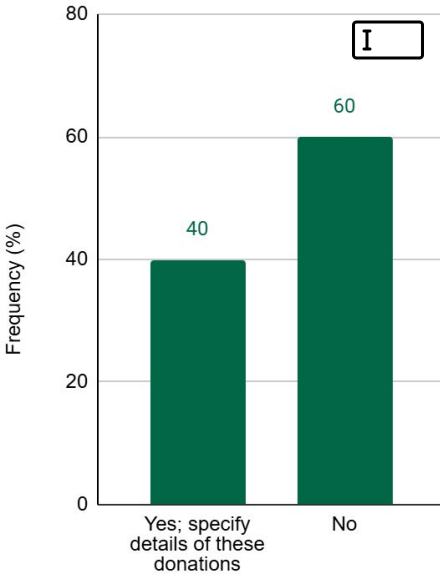
- Range from 1-5 lbs - 57.1%
- More than 5 lbs - 14.3%
- Retail cuts (grounder, roast/steak cuts, and sausage) - 28.6%



Results - Food Distributors

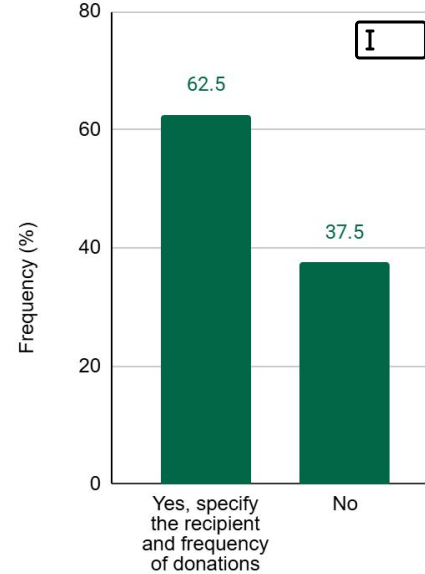
Protein Donation Trends

Has previously received meat for distribution



Response Themes	Freq (%)
Received from Maui Nui Venison	33.3
Received from Maui Cattle	16.7
Irregular or sporadic frequency	50.0

Has previously distributed protein sources



Response Themes	Freq (%)
Emergency food distributions (as needed)	50.0
Family & friends (as made available)	33.3
Partner agencies and programs (1-2 time per month)	16.7



Results - Food Distributors

Challenges in perishable donation distribution

I

Challenges

Response Themes	Freq (%)
Cold Storage	36.4
Transportation	18.2
Food safety compliance	9.1
Community acceptance	9.1
None	27.3

I

Support Req

Facilities for storage and distribution	50.0
Transportation	12.5
Increase in processing capacity	12.5
Public education	12.5
Policy changes	12.5

- Challenges and Solutions in Perishable Donation Distribution (see left)

- Willing to accept non-USDA inspected protein

○ Yes - 40.0%

I

○ No - 60.0%

- The proposed follows general food safety - 33.3%
- Food distributor liability - 16.7%
- Proper packaging and labels - 33.3%
- Facility improvements - 16.7%

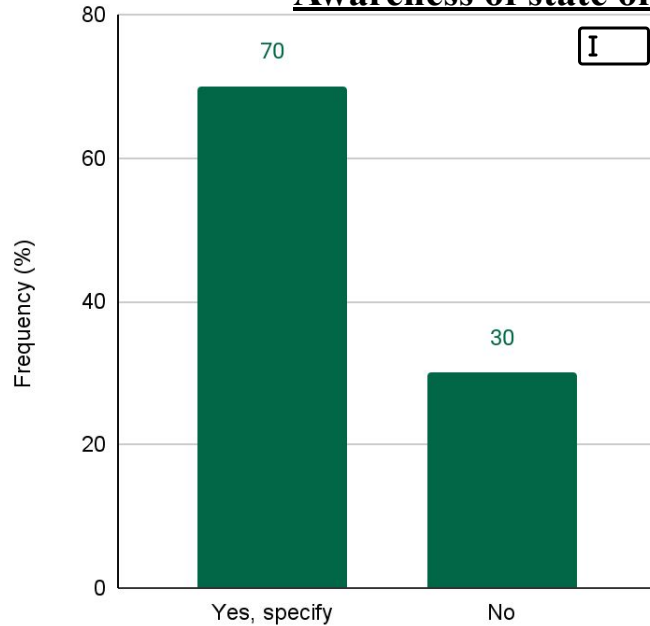


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Results - Food Distributors

Regulatory awareness and compliance support

Awareness of state or local regulations affecting donation/distribution



Response Themes	Freq (%)
<i>Federal Meat Inspection Act (FMIA)</i>	20
<i>Food Safety Modernization Act (FSMA)</i>	10
<i>Waste management</i>	10
<i>Food safety protocols</i>	20
<i>Packing and labels</i>	20
<i>Humane Methods of Slaughter Act (HMSA)</i>	10
<i>SB 1230 SD2 (revised in 2025)</i>	10



Results - Food Distributors

Regulatory awareness and compliance support

Support or resources to support regulatory compliance

I

Response Themes	Freq (%)
Legislative oversight and guidance	20
Non-edible material removal	10
Increased processing capacity/storage	20
Partnering with certified processors	20
Liability protection for distributors	10
Wild game distribution training	10
Financial support	10

- Would **fiscal incentives encourage participation** in the wild game protein program?

- Yes - 44.4% I
 - Cost of labor, storage and transport - 40%
 - Tax credit for donations - 20%
 - Funding for administrative program support - 40%
- No - 55.6%





Select all that apply



Further elaboration allowed

Results

Hunters

Respondents = 73

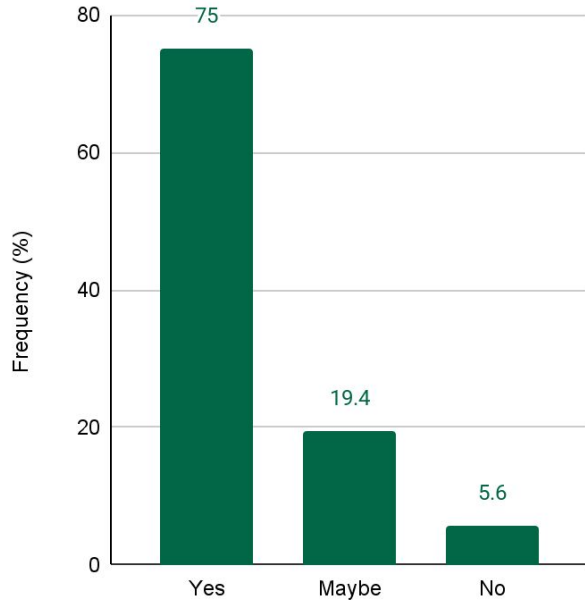


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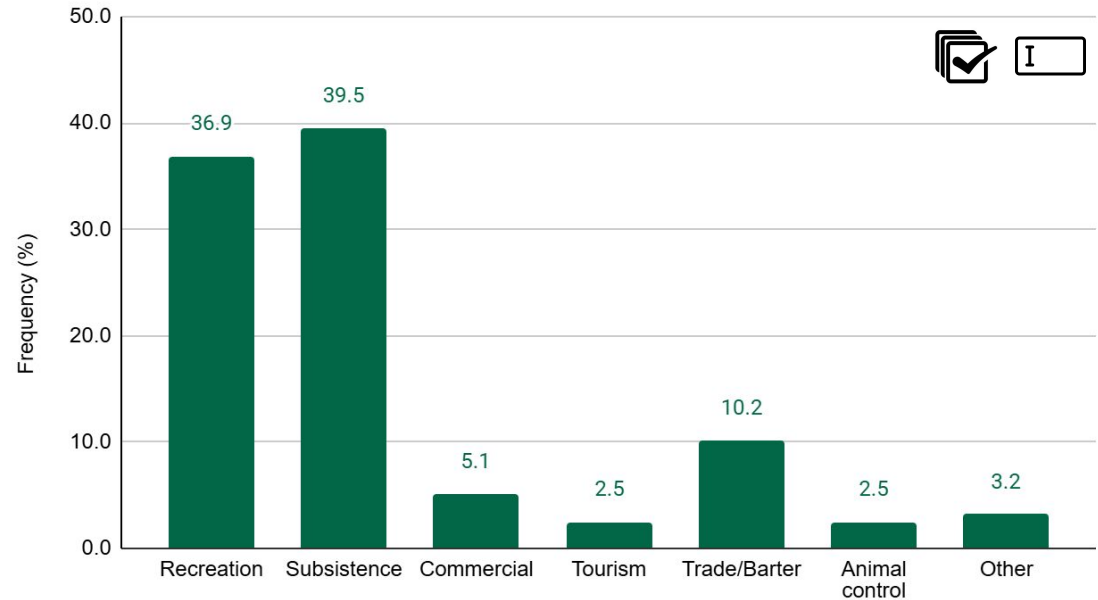
Results - Hunters

Characteristics

Interest in proposed program



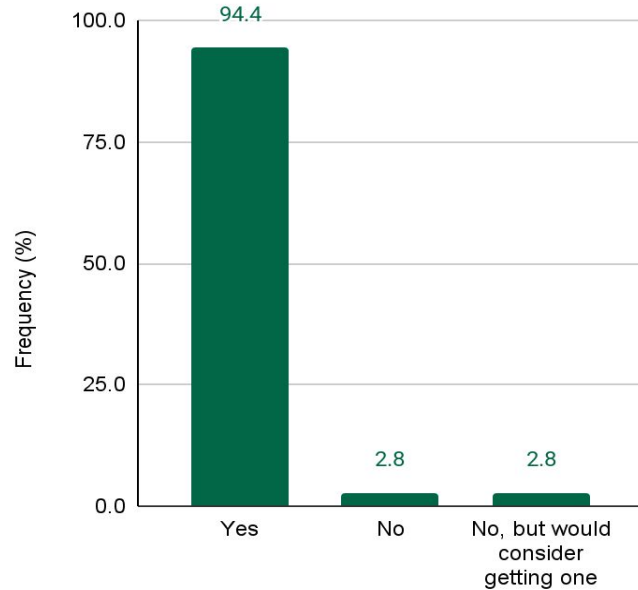
Reason for Hunting



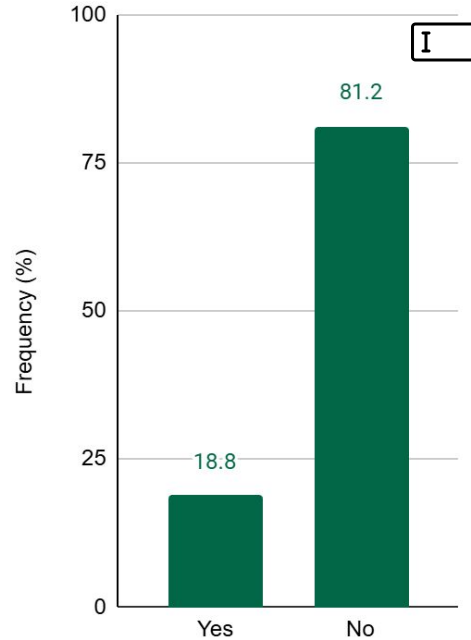
Results - Hunters

Characteristics

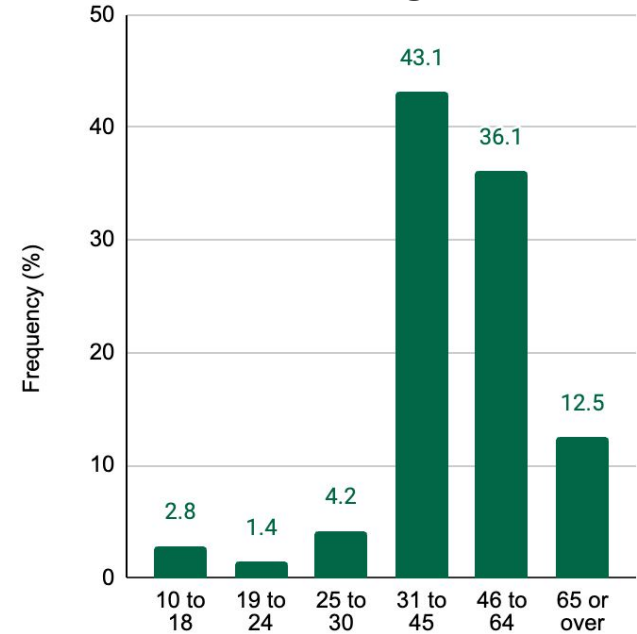
Has hunting license



Hunts in a group



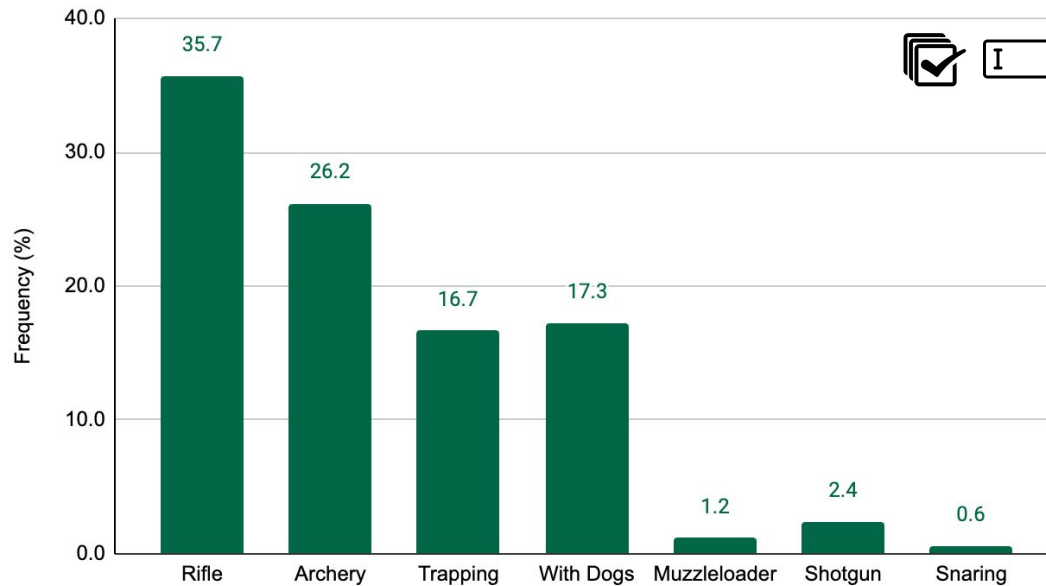
Hunter age



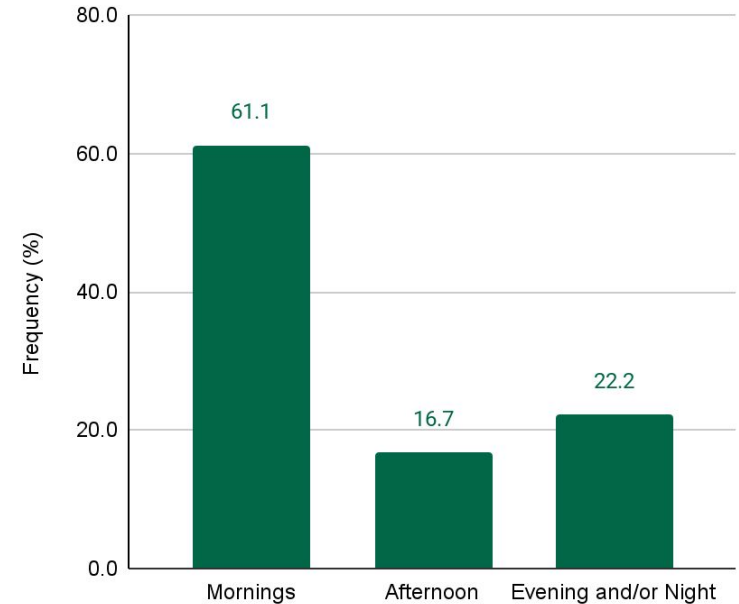
Results - Hunters

Characteristics

Type of hunting performed



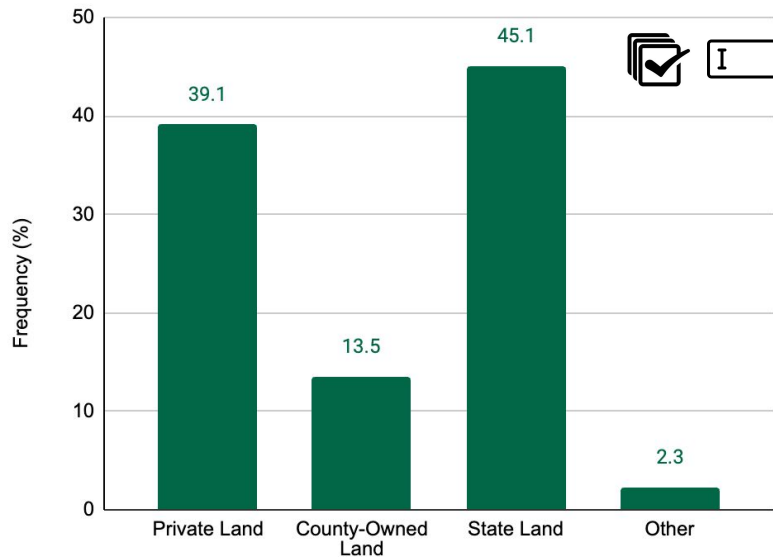
Time of day hunting was performed



Results - Hunters

Location Characteristics

Type of land hunted on



Hunting Locations

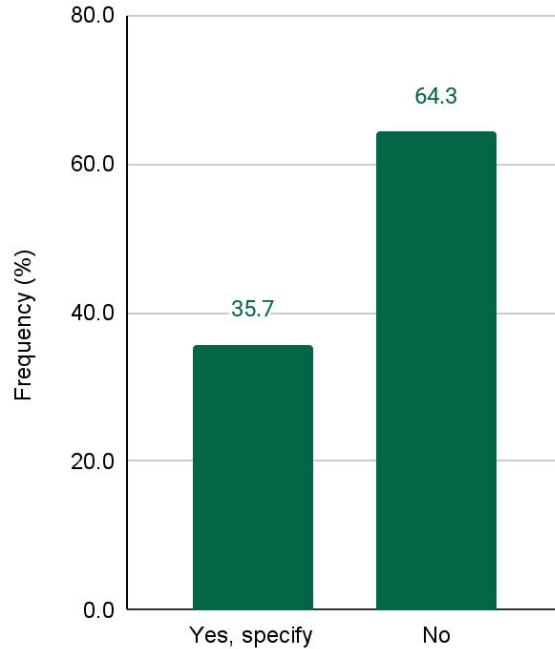


<https://geology.com/usgs/loihi-seamount/>



Results - Hunters

Location Characteristics



Has agreements with private landowners

I

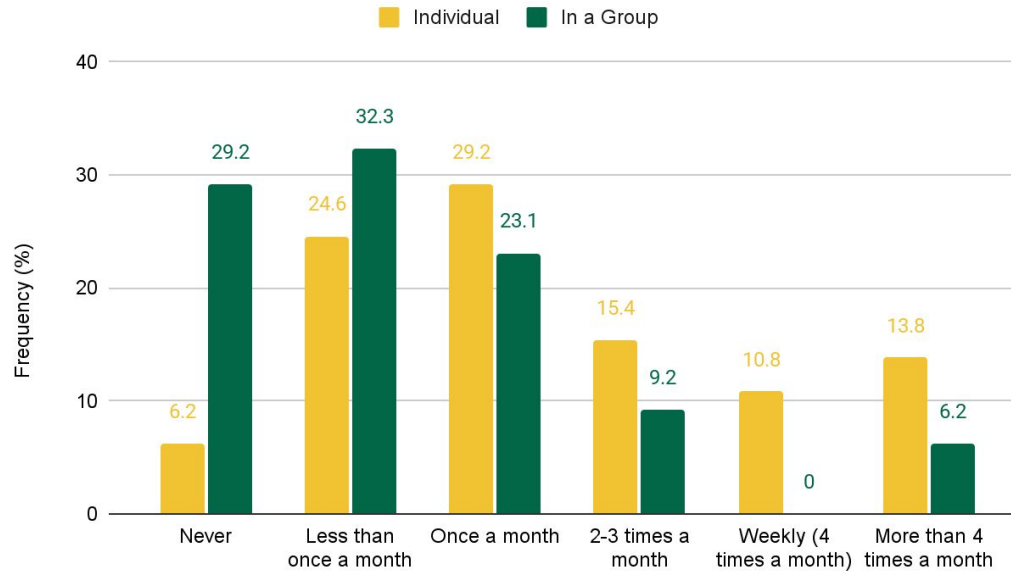
Response Themes	Freq (%)
<i>Permission (verbal or written)</i>	52.0
<i>Guided/group hunts</i>	16.0
<i>Bounty (Hunter paid a fee for game hunted)</i>	12.0
<i>Landowner</i>	8.0
<i>Animal Control</i>	12.0



Results - Hunters

Group vs Individual Characteristics

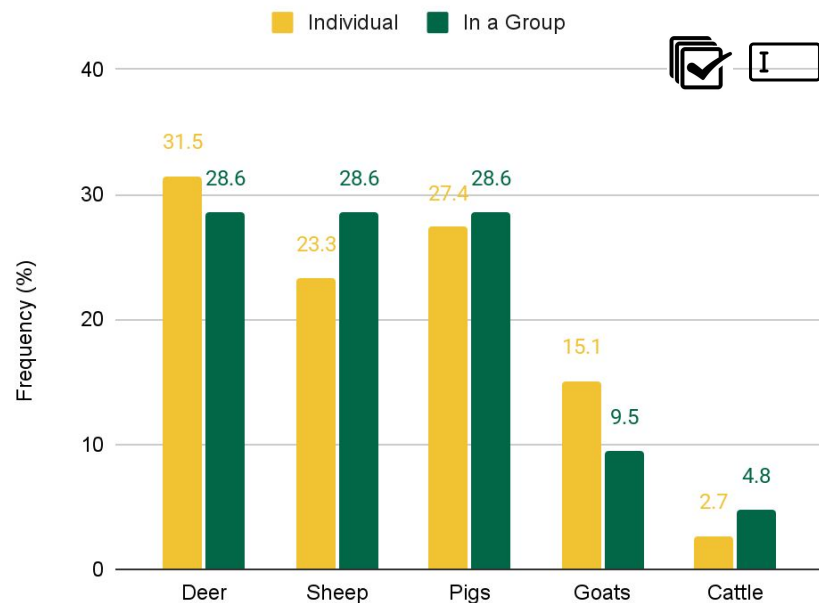
Frequency hunting



Results - Hunters

Group vs Individual Characteristics

Species harvested per hunt



Number of animals harvest per hunt

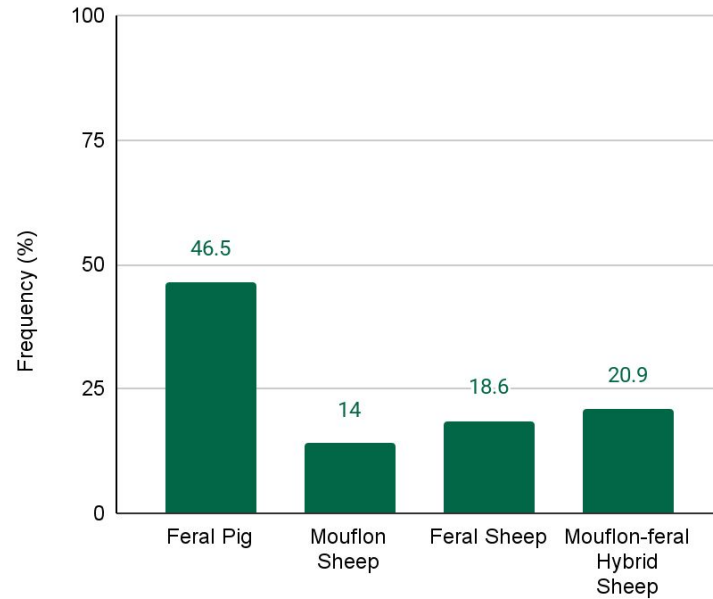
Individual	Minimum	1 animals	I
	Maximum	20 animals	
	Average	1.5 animals	
Group	Minimum	1 animals	I
	Maximum	25 animals	
	Average	6.5 animals	



Results - Hunters

Primary Species Hunted

Hawai'i (Big Island)



<https://geology.com/usgs/loihi-seamount/>

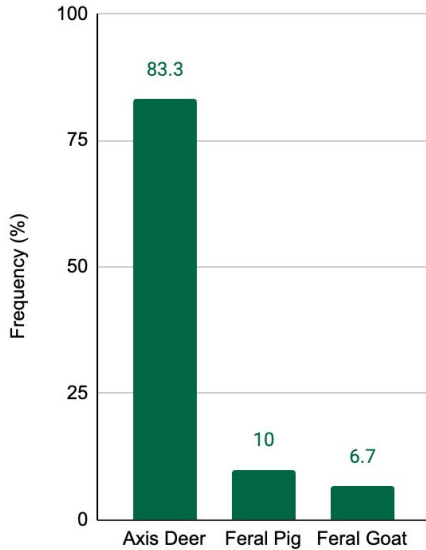


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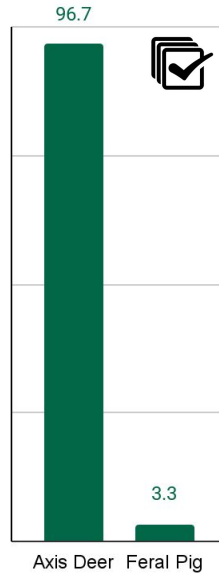
Results - Hunters

Primary Species Hunted

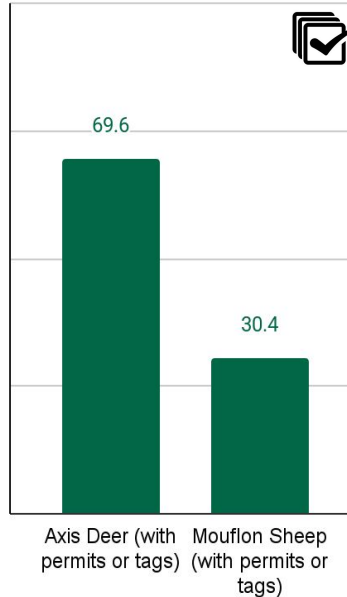
Maui



Moloka'i



Lana'i



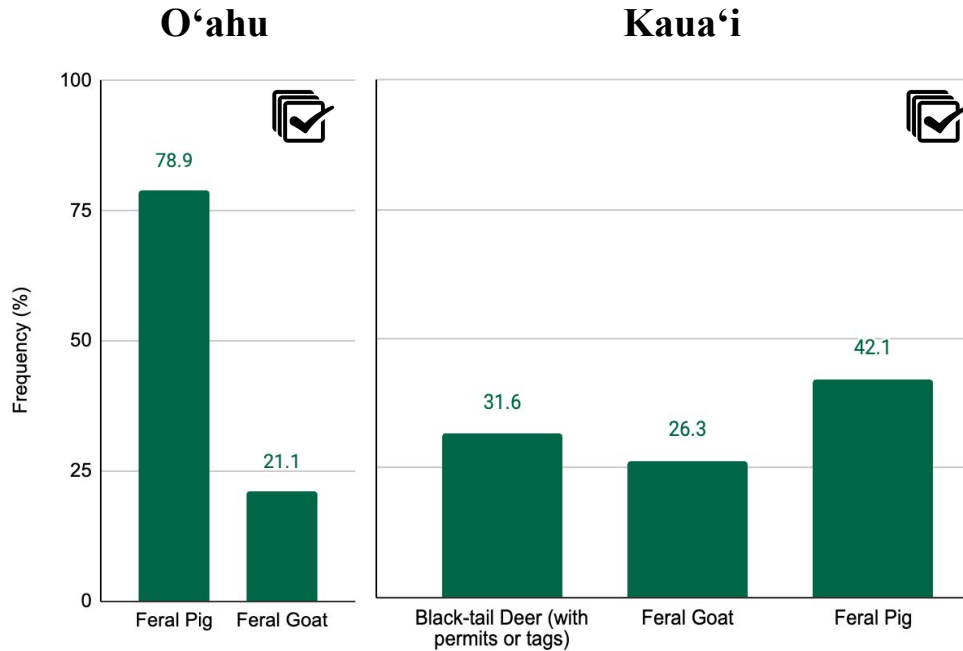
<https://geology.com/usgs/loihi-seamount/>



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Results - Hunters

Primary Species Hunted



<https://geology.com/usgs/loihi-seamount/>

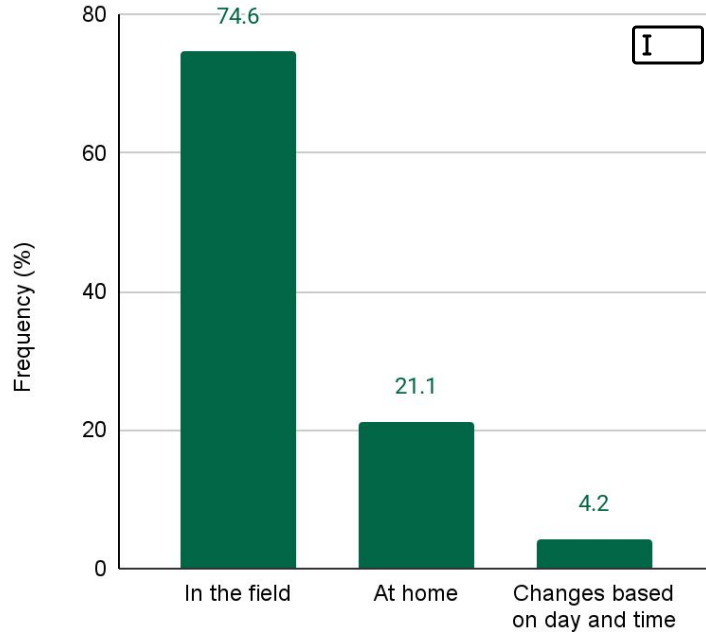


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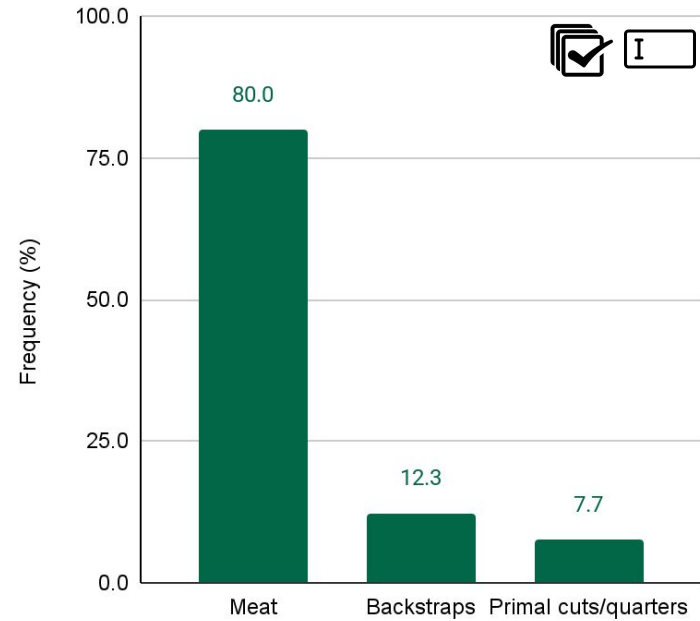
Results - Hunters

Dressing Practices

Location of Dressing



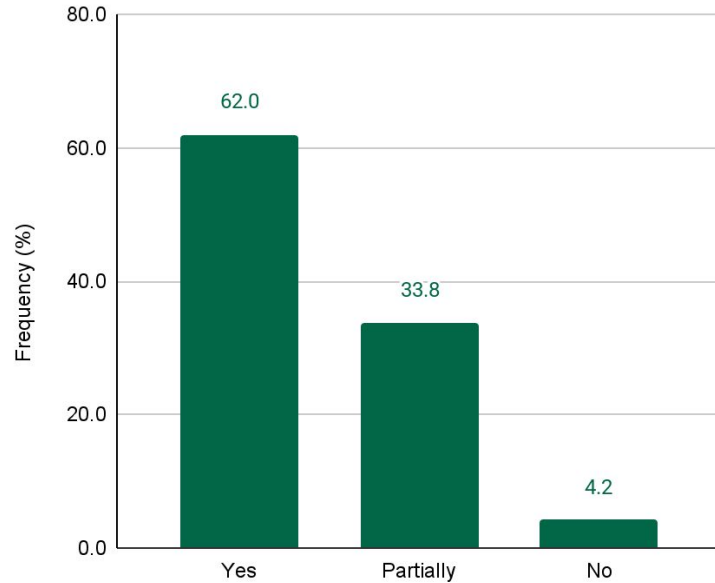
Most valuable part of carcass



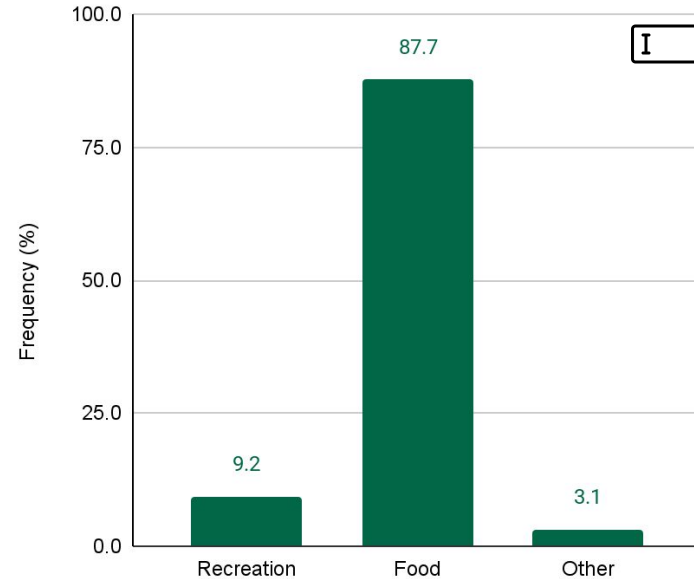
Results - Hunters

Dressing Practices

Familiarity with food-safe handling



Primary use for game hunted



Results - Hunters

Proposed Program Willingness

Hold an annual hunt for food donation to underserved populations		
<u>Yes</u>	<u>Maybe</u>	<u>No</u>
47.0 %	39.4 %	13.6 %

Live-trap and deliver game to USDA inspected facility	
<u>Yes</u>	<u>No</u>
58.6 %	41.4 %

Using an app, take a picture of wild game and harvest location	
<u>Yes</u>	<u>No</u>
81.0 %	19.0 %

Using an app, record information related to harvest (sex, condition, type, etc.)	
<u>Yes</u>	<u>No</u>
84.1 %	15.9 %

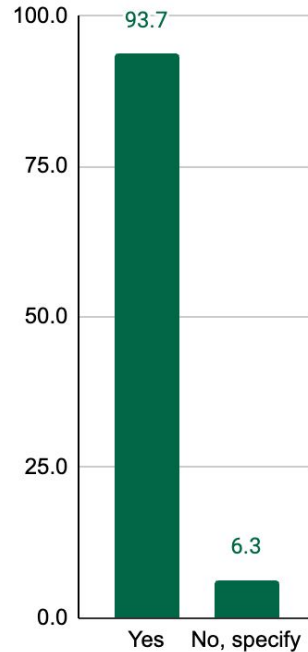


Results - Hunters

Proposed Program Willingness

Abide by food safety handling practices

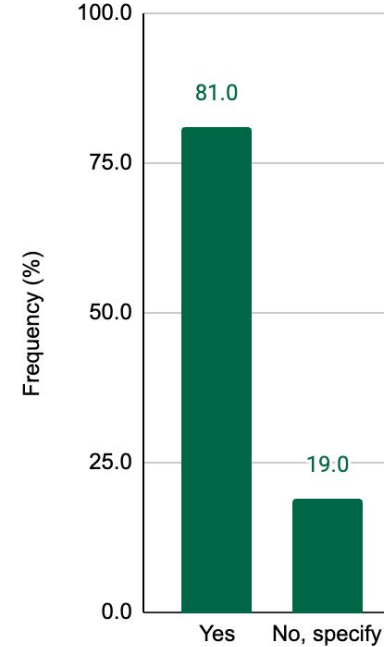
I



Response Themes	Freq (%)
<i>Handling practices should be realistic/practical</i>	50
<i>Unfamiliar with practices</i>	25
<i>Unwilling to be held liable</i>	25

Take a food safety handling course

I



Response Themes	Freq (%)
<i>State courses should be free</i>	58.3
<i>Requests program details</i>	25.0
<i>Has previous experience</i>	16.7



Results - Hunters

Regulatory awareness and compliance support

Awareness of state or local regulations affecting donation/distribution

I

Response Themes

Freq (%)

Proper packing and labels

5.9

USDA supervised processing and inspection

47.1

*Regulation of animals post-mortem
(transportation and bag limits)*

17.6

DLNR Chapter 123-22-6 A and C

5.9

Unsure of exact measure/law restrictions

23.5

Support or resources to support regulatory compliance

I

Response Themes

Freq (%)

*USDA facility/inspector
availability*

33.3

Hunting land accessibility

20.0

Training and certification

20.0

Regulatory easement

20.0

Game meat plan development

6.7

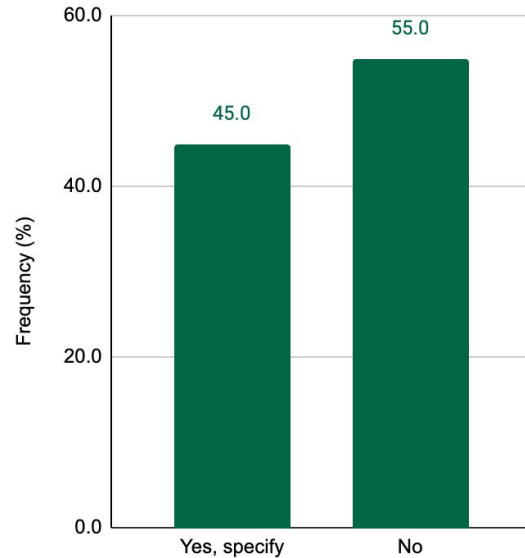


Results - Hunters

Regulatory awareness and compliance support

Fiscal incentives encourage participation in the wild game protein program

I



Response Themes	Freq (%)
<i>Subsidized hunts (including materials, transportation, etc.)</i>	38.7
<i>Bounty (rate per animal)</i>	12.9
<i>Tax credits or deduction</i>	12.9
<i>No incentive needed</i>	9.7
<i>Cash/check</i>	9.7
<i>Unspecified Incentives</i>	9.7
<i>Discounted processing fees</i>	6.5



Results - Hunters

Regulatory awareness and compliance support

Barriers to prevent individuals from donating wild game



Response Themes	Freq (%)	Response Themes	Freq (%)
<i>Cost of processing</i>	19.2	<i>No barriers at all</i>	9.6
<i>Lack of knowledge of who can accept donations</i>	33.7	<i>Cost of hunting</i>	1.9
<i>Lack of knowledge on regulation regarding meat donations</i>	26.9	<i>Lack of a game management plan</i>	1.9
<i>Loss of meat</i>	5.8	<i>Liability</i>	1.0





Select all that apply



Further elaboration allowed

Results

Slaughterhouse / Butchers

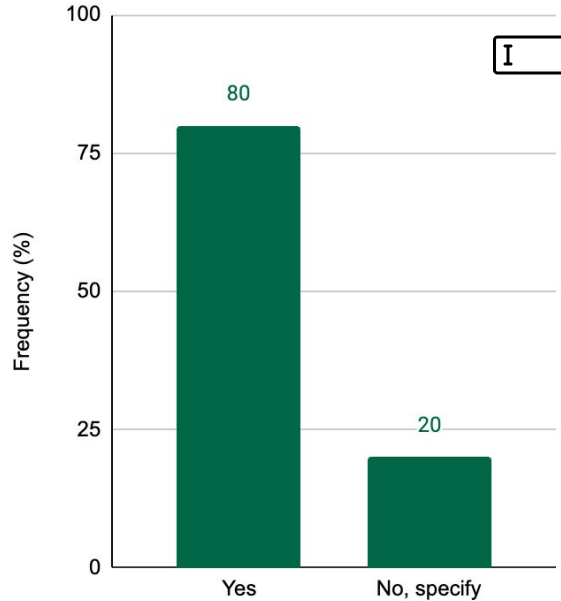
Respondents = 9



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Results - Slaughterhouse and Butcher Characteristics

Interest in proposed program



Location of facility

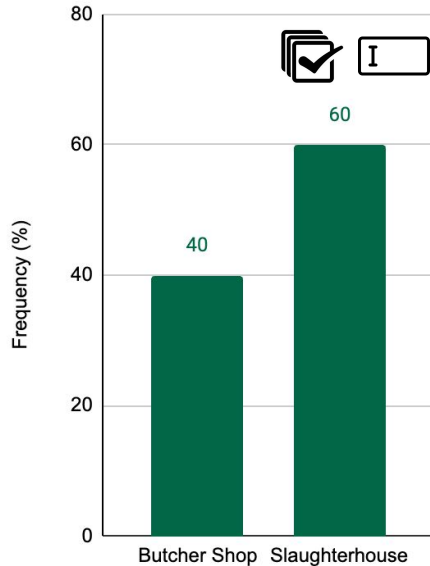


<https://geology.com/usgs/loihi-seamount/>

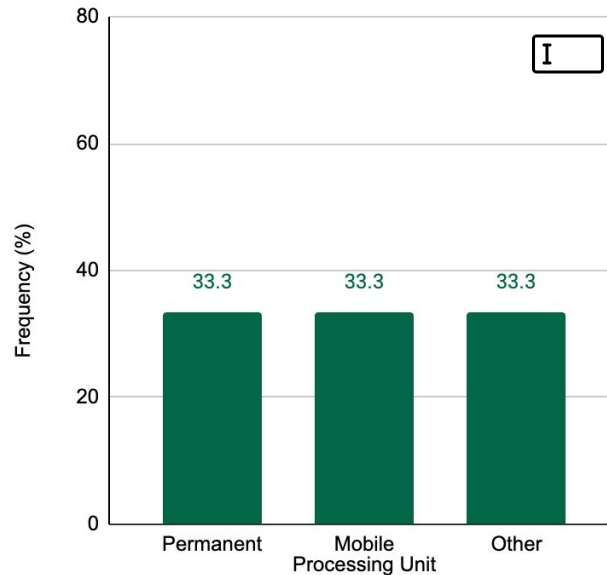


Results - Slaughterhouse and Butcher Characteristics

Operation Type



Slaughterhouse Type



Capacity to slaughter, per week

I

Beef

18,000 lbs

Axis Deer

2,000 lbs

Capacity to fabricate carcass, per week
(non-slaughterhouse)

I

Beef

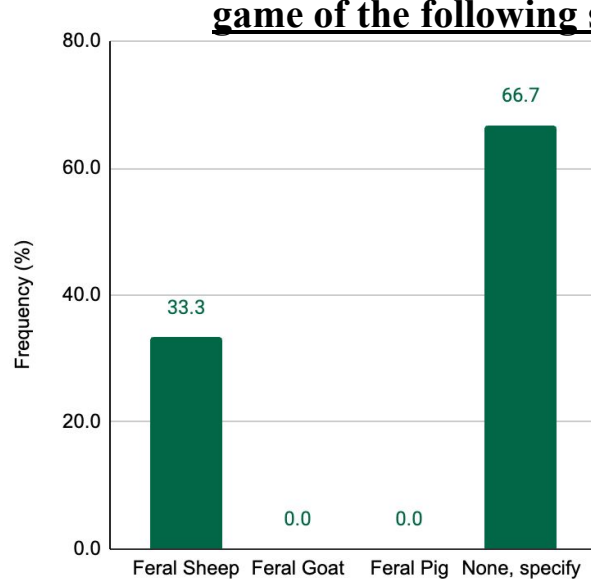
14,000 lbs



Results - Slaughterhouse and Butcher

Proposed Program Willingness

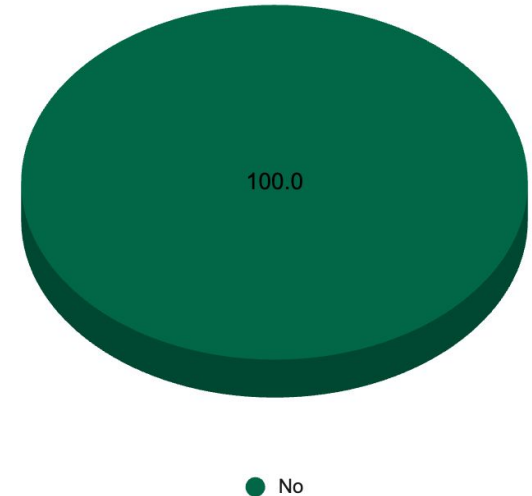
Willingness to accept “live trapped” game of the following species



Open responses for
“None”:

- Certification permits domestic lamb and beef, but deer would be acceptable - 100%

Currently allows processing of wild game



● No

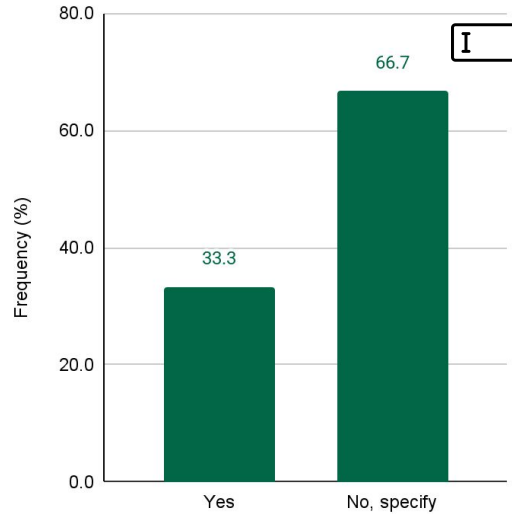


Results - Slaughterhouse and Butcher

Proposed Program Willingness

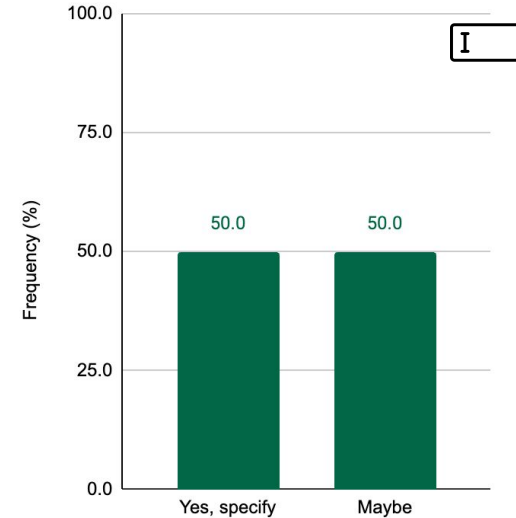
- Length of time, post-mortem, game can be accepted
 - 10-12 hours or less - **100%** I
- Can this length be extended under certain circumstances/conditions
 - No - **100%** I

Can facility be extended to accommodate wild game



Limited Capacity - 100%

Extra measures between wild game and other species



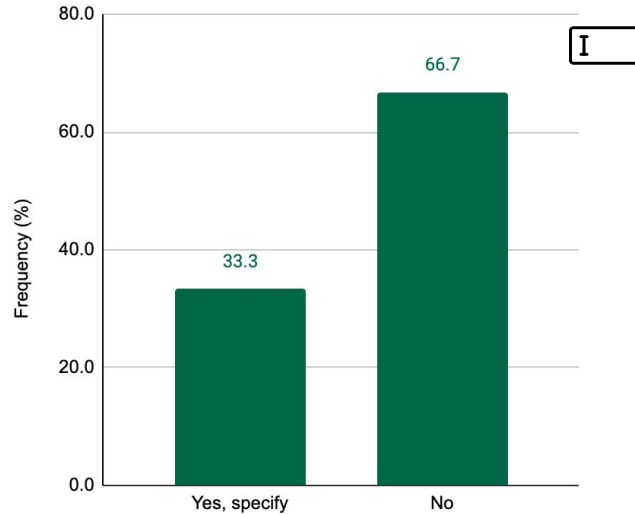
HACCP Plan - 100%



Results - Slaughterhouse and Butcher

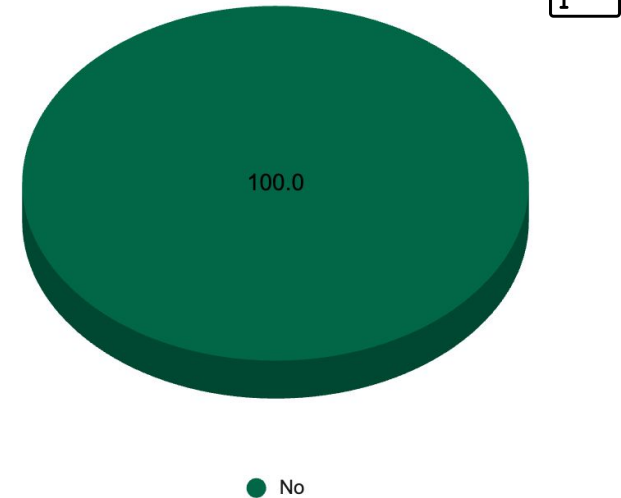
Regulatory awareness and compliance support

Challenges to accepting game for processing



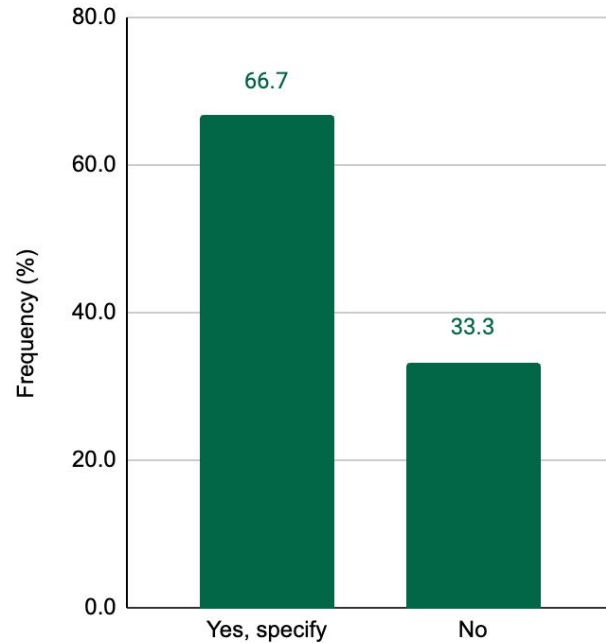
Conflicts with other species - 100%

Awareness of state or local regulations affecting donation/distribution



Results - Slaughterhouse and Butcher

Regulatory awareness and compliance support



Fiscal incentives to encourage participation in the wild game protein program

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Response Themes	Freq (%)
<i>Reimbursement of processing cost</i>	50.0
<i>Support to increase personnel</i>	50.0



Brief Discussion

General and Demographic

- Respondents were mostly male (79.5%) and racially diverse
- A majority of respondents were hunters (77.7%)
 - Food distributors (12.8%) and slaughterhouse/butchers (9.6%) were less represented.
- Most respondents (64.3%) across all categories support the state contracting experienced wild-game processors
- Conditional support for state awarded contracts mainly depend on
 - Processing capacity (33.3%)
 - Local company be awarded (33.3%)
 - Game origin disclosure (16.7%)
- The main source of support requested was an increase in processing capacity (22.2%)



Brief Discussion

Food Distributors

- A large portion (80%) of food distributors were interested in participating .
- Food distributors provide distribution access statewide, however capacity across organizations ranges vastly (100 to 500,000 lbs).
 - Not all distributors may be able to accommodate large amounts of protein donation.
- Previous protein donation has been inconsistent. Of the 62.5% of organization who have distributed sources in the past, only 16.7% have regular donation schedules.
- Main challenges are cold storage (36.4%) and transportation (18.2%).
 - Support should address this to increase facility capacity for storage and distribution (50%)
- Most distributors (60%) are reluctant to accept non-USDA inspected protein.
- Knowledge of regulations affecting donation and distribution is varied, clear guidance and oversight (20%) is requested.



Brief Discussion

Hunters

- Hunters generally support the program (75%)
- Hunting occurs across all islands, and primarily on state (45.1%) or private (39.1%) land.
 - Landowners primarily give permission verbally or in writing (52%).
- Hunting in groups occurs less frequently, however they harvest more animals (avg: 6.5) per hunt.
 - Individuals hunt more frequently and harvest less animals (avg: 1.5) per hunt.
- Most dressing is done in the field (74.6%).
- On islands permitted to harvest axis deer (Molokaʻi, Maui, and Lanaʻi) it is the primary species hunted (96.7%, 83.3%, and 69.6% respectively).
- Majority of hunters are either familiar (62%), or partially familiar (33.8%) with food-safe handling.
- Strong willingness (81% and 84.1%) to utilize an app for harvest details, and movement to processors post-mortem.
- Hunters request an increase in USDA inspector availability (33.3%)



Brief Discussion

Butchers

- Responses indicated survey reached limited facilities statewide, mostly on Maui (60%)
- Primarily slaughterhouses (60%)
 - Even distribution between mobile and permanent facilities (33.3% each)
- Capacity responses were limited and varied
- None of the facilities who responded currently process wild game
 - Limited willingness (66.7% unwilling) to accept game species
 - Strict time limits to accept carcasses
- Majority of facilities are unable to be extended (66.7%) due to limited capacity.
- All responding facilities (100%) were unaware of local or state regulations regarding donation
- Cross species contamination (33.3%) is the main challenge of respondents
- Majority of processors (66.7%) indicated that fiscal incentives would encourage participation



Conclusion

- Overall support exists, especially from hunters, but participation will depend greatly on capacity and clear guidance/rules.
- Processing capacity and storage limits are major barrier for all groups
- Regulatory awareness is limited, and communities request clear guidance and and liability protection
- Distribution networks can reach communities, however storage capacity is limited and donations have been inconsistent
- Hunter and very willing to participate, especially in mobile reporting tools. However they request better land access and inspector availability.
- A majority of respondents (64.3%) support the state awarding contracts to experienced processors.



Questions?

For additional questions, please feel free to contact:

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