



CARIBBEAN PLANT HEALTH DIRECTORS

PROTECTING CARIBBEAN AGRICULTURE

GIANT AFRICAN SNAIL WEBINAR

IMPACT AND LONG-TERM MANAGEMENT OF THE GIANT AFRICAN SNAIL: ANTIGUA AND BARBUDA

PRESENTED BY: DR. JANIL GORE-FRANCIS
Chief Plant Protection Officer, Antigua and Barbuda
OCTOBER 27, 2022

PRESENTATION OUTLINE

IMPACT

- Distribution & spread
- Population dynamics
- Effects
- Impact assessment survey

MANAGEMENT

- Resources
- Initiatives
- Prospects for biocontrol
- The way forward



IMPACT

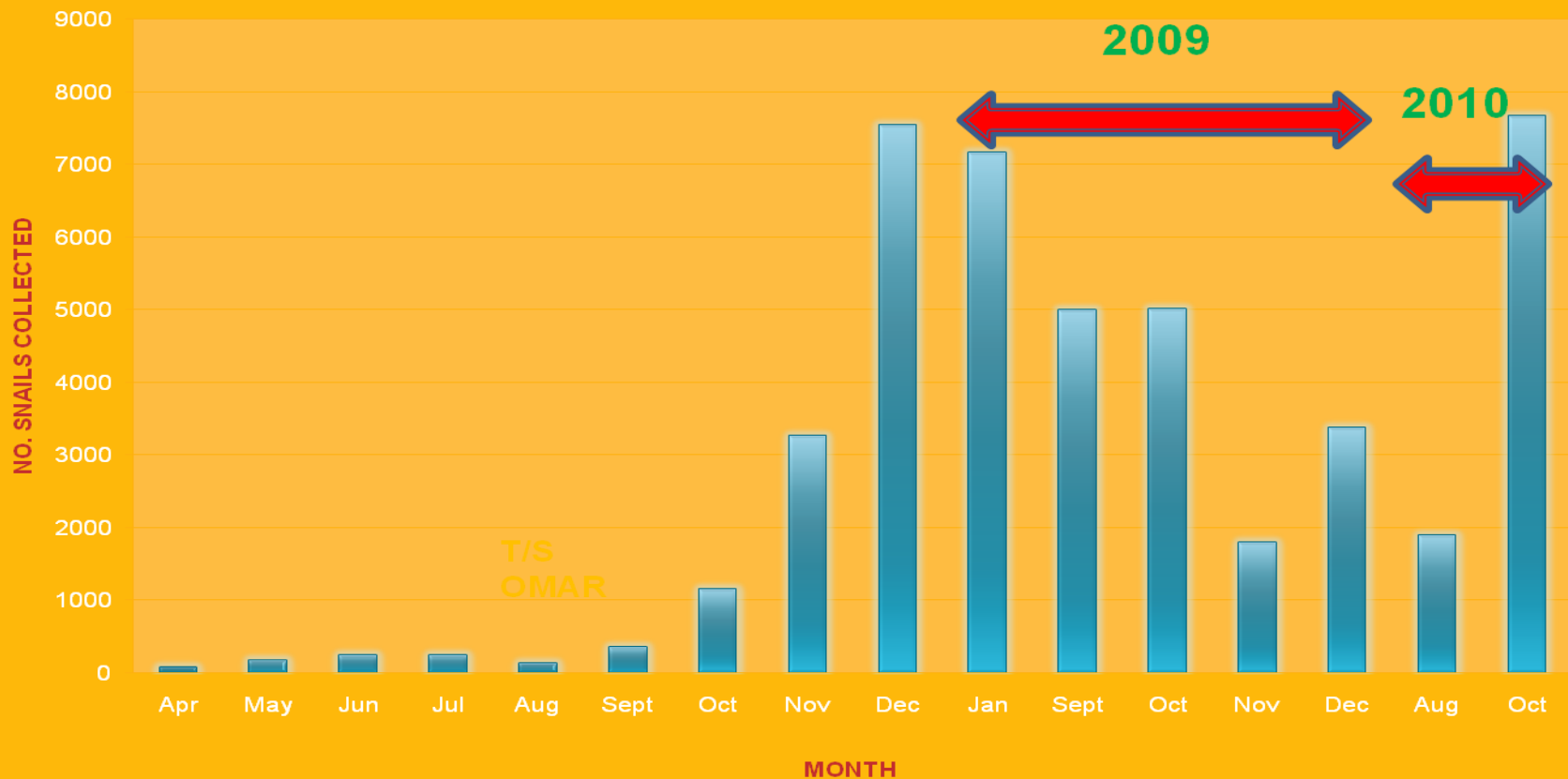
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October 2022



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POPULATION DYNAMICS

Number of Giant African Land Snails collected from infested areas in Antigua over the period April 2008 to October 2010: Jolly Hill/Bolans New Extension

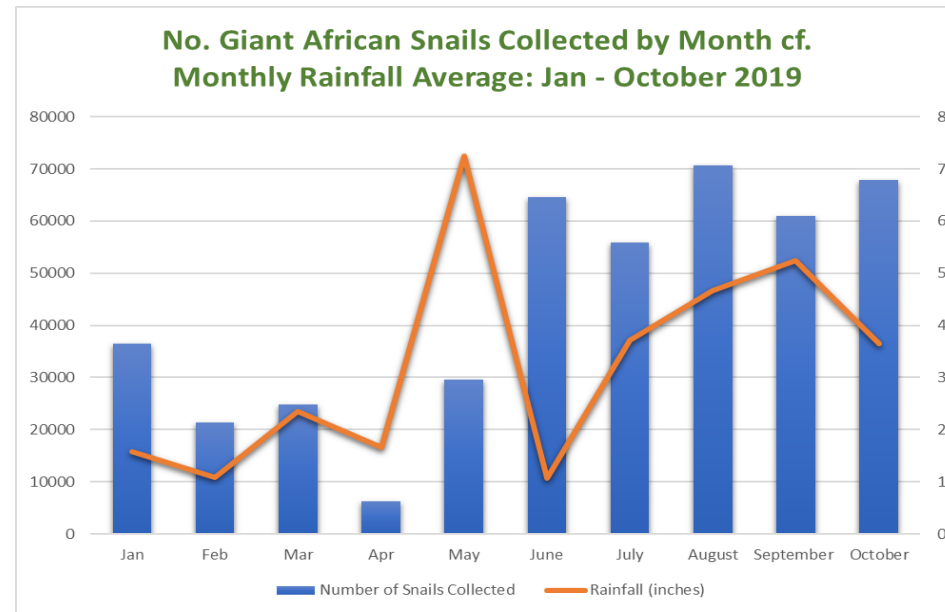
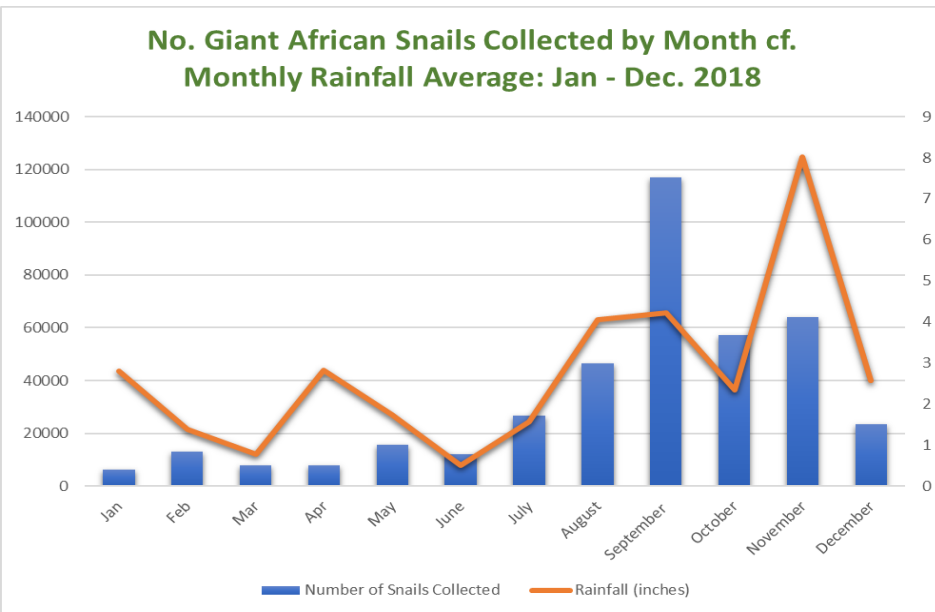


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POPULATION DYNAMICS

RAINFALL VS. NUMBERS: 2018

RAINFALL VS. NUMBERS: 2019



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POPULATION DYNAMICS

September - October 2022

January 2022



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PLANT & CROP DAMAGE



EFFECTS

PROPERTY DEFACEMENT (FAECES)



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AIRPORT RUNWAY INVASION



EFFECTS

SNAIL'S RESPONSE TO BAITING



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IMPACT ASSESSMENT SURVEY



IMPACT ASSESSMENT SURVEY FOR THE GIANT AFRICAN SNAIL
IN ANTIGUA AND BARBUDA



Enumerator's ID: _____
Location: _____
Date: _____

STATISTICS RESEARCH & IT
MINISTRY OF AGRICULTURE
FISHERIES AND BARBUDA

CODE _____

- **OBJECTIVE:** Determine the economic & social impact of the GAS on affected groups (using a stratified random sampling approach)
- **RESULTS**
 - 202 respondents participated (Nov. 2019 – June 2020)
 - 15% reported being affected by the GAS
 - Average monthly cost for control measures – US\$140
 - Social impact (stench of rotting snails, reduced outdoor activity)
 - Economic impact (cost of bait, etc.)
 - >50% unwilling to participate in the eradication effort

1.0	Which of the groups best describes you?	Homeowner	Crop farmer	Livestock farmer	Input Supplier	School	Hotelier	Other(specify)	
2.1	Is the Giant African Snail a problem for you? (if no proceed to Q4)	Yes		No					
2.2	If Yes, how severe are the effects?	NA	not severe					very severe	
			1	2	3	4	5		
	1. Walls of buildings or property defaced with snail faeces								
	2. Plants &/or crops eaten by the snail								
	3. Loss of use of property for its intended use due to the presence of the snail								
	4. Injury from the shell of the snail								
	5. Injury to pets from ingestion of the snail								
	6. Damage from the shell of the snail (e.g. punctured tire)								
	6. Other (Please Specify):								
2.3	What is the size of your property that is infested? (Please specify acreage)							Don't know	
2.4	How would you rate the effects of the impact from the snail?	NA	Not sig.			very sig.			
			1	2	3	4	5		
Economic	1. Cost of snail bait, salt or other substance used to control the snail								
	2. Employment of someone to collect the snails from my property								
	3. Increased expenditure to clear land & remove snail harbourage								
	4. Loss of income as a direct result of the presence & effect of the snail								
	5. Depreciation of assets / property								
	6. Increased snail related medical expenditure								
	7. Other (specify)								
Social	8. Increased stress levels due to the snail infestation of my property								
	9. Reduction in outdoor activities								
	10. Relocation								
	11. Unpleasant smell due to decomposing snails								
	12. Less time to pursue leisure activities (Time taken up collecting snails)								
	13. Demotivated from investing more (e.g. in the business, property, farm etc.)								
	14. Other (Specify)								
2.5	How long have you been exposed to the effects of the snail? (Please specify number of years)								
3.0	Do you use any measure to control the snail?	Yes		No					

MANAGEMENT

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MANAGEMENT: Resources

Finances

- PSIP for Eradication of the GAS (*approx. \$EC4 million: 2017-2020*)
- Cabinet-Approved Bounty Initiative (*EC\$1 million: Sept. 23 – Dec. 31, 2018*)
- IICA Tech. Coop Rapid Response Action Project (*Oct. – Dec. 2019*) (*US\$10,000*)

Human Resource

- GAS Task Force (multi-sectoral, cabinet-approved group of stakeholders)
- Work Experience program (trainees)
- NPPO staff
- Individuals contracted under various initiatives
- Schools, churches, general public

MANAGEMENT: Baiting & Collecting



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MANAGEMENT: Initiatives

Bounty Initiative

- Over 770,000 snails collected

IICA RRA Project

- 8 townhall meetings facilitated, incl. Barbuda
- Flyers & brochures developed & widely distributed

MANAGEMENT: Public Awareness, Participation & Education

NATIONAL SNAIL COLLECTION DAYS

NATIONAL GIANT AFRICAN SNAIL COLLECTION DAY
DECEMBER 2ND + 3RD 2017

BRING YOUR:

- 13 GALLON GARBAGE BAGS
- LATEX GLOVES
- BOX OF SALT

BE A PART OF THE NATIONAL GIANT AFRICAN SNAIL COLLECTION DAY ON DECEMBER 2ND AND 3RD 2017 IN YOUR COMMUNITY
COLLECTION STARTS AT 5AM
PRIZES FOR THE LARGEST GROUP & THE GROUP THAT COLLECTS THE MOST SNAILS
CALL 562-7439 FOR MORE INFORMATION
 BROUGHT TO YOU BY THE MINISTRY OF AGRICULTURE

PUBLIC PARTICIPATION BROCHURES

Community participation is a must to eradicate the Giant African Snail.

The Giant African Snail problem is a national one of mammoth proportions.

- All home owners in infested areas must take responsibility for collecting and killing snails found on their property.
- Land owners must ensure that unoccupied lands do not become overgrown and provide refuge and breeding grounds for this invasive pest.
- Communities must work together for best effect.

PEST ALERT!



Giant African Snail Management



Community participation is a must to eradicate the Giant African Snail.

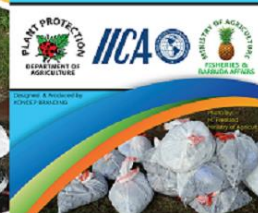


For further information, kindly contact the Plant Protection Unit at 766-1255, 766-7378, 562-3776 or 463-97617 OR via email at plantprotection@b.gov.ag.



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GIANT AFRICAN SNAIL MANAGEMENT

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MANAGEMENT: Stakeholder Collaboration



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MANAGEMENT: Prospects for biocontrol

SHELLS TAKEN OVER BY HERMIT CRABS



LAND TURTLES FEED ON THEM



NEW GUINEA FLATWORM PARASITISM?



Community Participation to Eradicate the GAS: Townhall Meeting - MPCC 28112019

THE WAY FORWARD

COLLECTION BY ALL

DESTRUCTION & DISPOSAL



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THE WAY FORWARD

THE MESSAGE

Giant African Snail Management
STEPS TO ERADICATE THE GIANT AFRICAN SNAIL

Step 1:
SUIT UP - Be sure to be properly attired in a full suit of clothes, including rubber gloves, shoes and protective eye wear.

Step 2:
COLLECT THEM - Gather the GIANT AFRICAN SNAILS and place into a garbage bag, bucket or container which can be sealed.

Step 3:
APPLY SALT - Once collected, pour moderate amounts salt onto the GIANT AFRICAN SNAILS in to catchment where you have them collected. (If there are more than 10 snails, call the Plant Protection Unit 462-6776/7)

Step 4:
DUMP THEM - After salting snails, tie or seal the bag/container you collected them in and dispose of them in the garbage.

THOROUGHLY WASH HANDS WITH WARM SOAPY WATER AFTER DEALING WITH GIANT AFRICAN SNAILS

IICA

For further information, kindly contact the Plant Protection Unit, St. John's, Antigua, Barbuda at 462-6776/7. Email: ppu@antigua.gov.bb

PUBLIC EDUCATION VIDEO



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