

Consumer Preferences & Distance Decay for Environmental Attributes in Non-Timber Forest Products

A Conjoint Study and Outreach Curricula for maple syrup in the U.S.A

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Research and Extension

- Maple Syrup Introduction
- Research Questions
- Consumer Demand Research
- Extension Outreach Curricula



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Seasonal Production

❑ Season Start

Late Winter thru Spring

❑ Conditions

Freezing Nights and Warm Days

❑ Process:

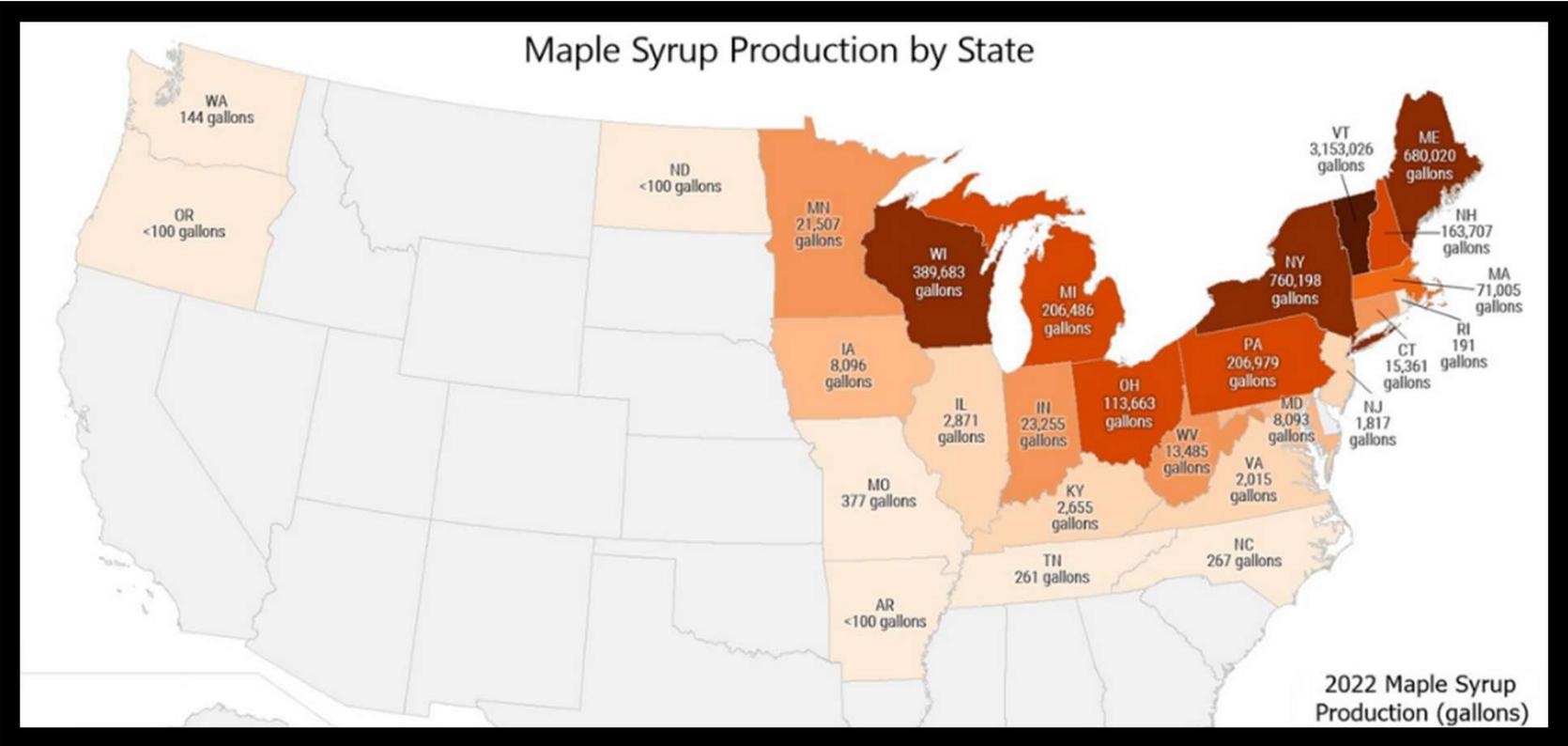
Sap = 2% sugar

Syrup = 68% sugar



Regional Production –

Annual Production increased 600% in 30 years



Strong Cultural Identity



Research Questions

- 1) What are consumer preferences and Willingness to Pay for environmental (non-use) attributes in pure maple syrup?
- 2) How does consumer demand for environmental attributes change between different U.S. domestic metro markets outside the production region?
- 3) Does consumer demand for environmental and origin attributes demonstrate distance decay in markets outside the production region?





Consumer Demand Research

Choice Experiment Design

Conjoint Analysis:

- A decompositional method that derives part worth utilities for a number of attributes
- Respondents rate a set of hypothetical product profiles (1-7)
- Regression coefficients calculate relative importance of attributes and trades offs with price or other attributes



Product Profiles

- ✓ Price
- ✓ Origin
- ✓ Certified Organic
- ✓ Climate Friendly Practices
- ✓ Sustainable Forest Management Practices
- ✓ Bird-Friendly Practices*
- ✓ Container Material (plastic or glass)



Vermont Survey n= 3,158 (preliminary results)

Importance Rating

Scale: 1-5

Statement	Mean	Std. Dev
It is produced with <u>sustainable forest management practices</u>	4.09	1.18
Production <u>protects water quality</u> and reduces flood potential	3.88	1.23
Production system utilizes <u>climate friendly practices</u> or has low greenhouse gas emissions	3.82	1.28
It is produced with <u>bird-friendly practices</u>	3.28	1.36
It is <u>certified organic</u>	2.76	1.46

Vermont Survey Results (preliminary results)

Relative Importance	
Attribute	RI (%)
Origin	77
Price	11.634
Organic	4.21
Container	3.368
Climate Friendly	2.028
Bird Friendly	1.76
Total	100

Distance Decay Hypothesis – Texas and California Compared to Vermont



✓ Origin of Production



✓ Certified Organic



✓ Climate Friendly Practices

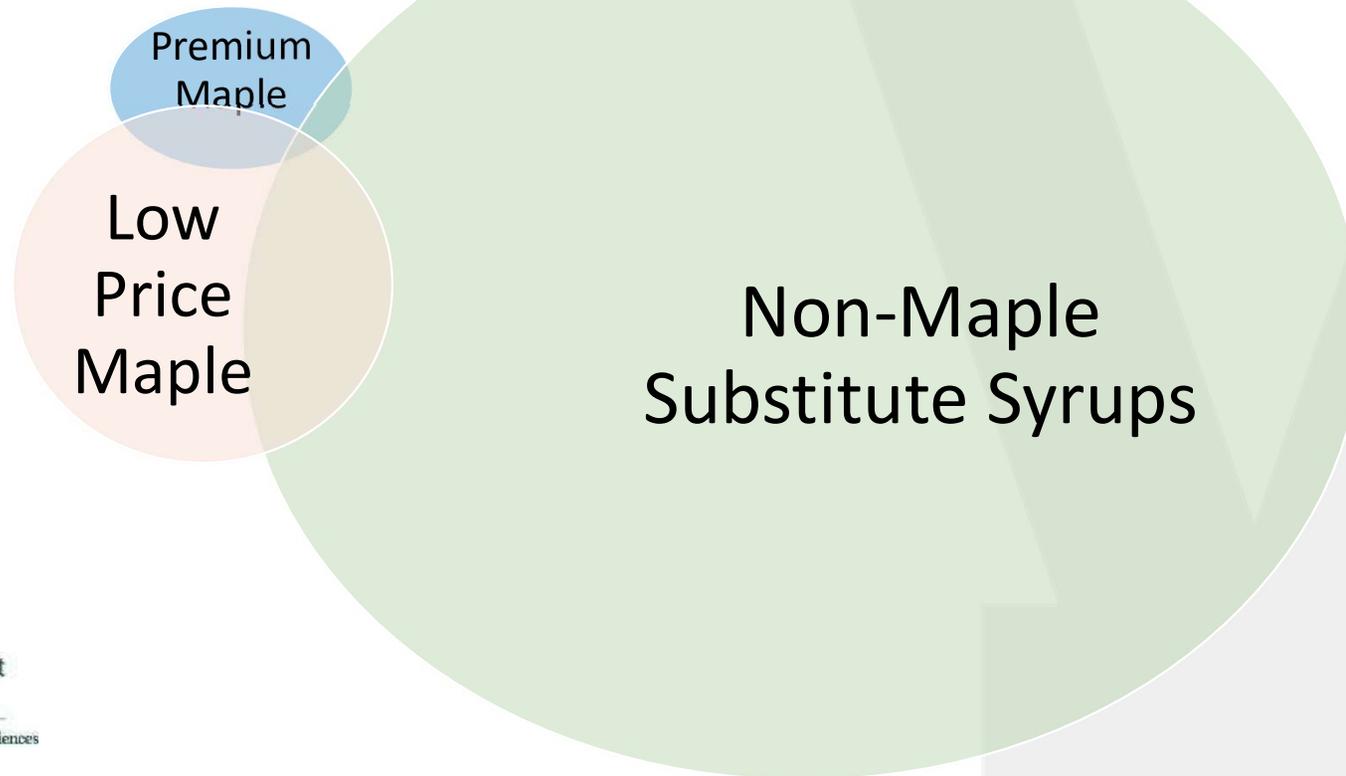


✓ Sustainable Forest Management Practices



✓ Bird-Friendly Practices

Premium Seeking vs. Price Sensitivity



Methodology for “Unfamiliar” Consumers: Texas and California

- ❑ Conjoint product profiles for pure maple syrup are problematic
- ❑ Hypothetical bias and accuracy challenges
- ❑ Can “pure maple syrup” be re-framed into familiar product category?
 - Sweetener
 - Condiment
 - Dessert Sauce/Topping

Extension Outreach Curricula

The Extension Classroom

General Outreach

- E-Newsletter: 400-500 word articles
- Producer Workshops: 60 minutes

Short Course (6+ hours direct contact)

- ✓ With Guidebook and Activity Sheets
- Webinar Series: 4 online sessions x 1.5 hours
- 1 Day – In person : 6-7 hours



“Market Scanning” Collection

- ❑ Photo library of products and retail locations
- ❑ Field Notes
- ❑ Product samples and group tastings



... > .MapleMrkt_BEST OF > 02_Product Appearance > 03_Best Graphic Art



Learning Objectives

- Understanding claims and third-party verifications
- Understanding market segmentation
- Develop one or more targeted marketing strategies based on geography, demographics or psychographic factors.
- Plan to implement targeted advertisements or communications to reach a specific audience.



All Industry Outcomes

- ❑ **Mass Market:** Understand high volume and lower price point demand.
- ❑ **Price Premium Attributes:** Consumer, buyer and business-2-business aspects.
- ❑ **Verification:** Begin discussion on measurement and third party governed programs.



Business – Firm Level Outcomes

- Market Segmentation Theory and Results
 - Age Profiles
 - Behavioral Habits
 - Price Sensitivity (or not)
- Implementing target market brand development and communication strategy



