

## ACER WEBINAR SERIES 2021 THE BUSINESS OF SAP

Thanks for joining us today.  
The presentation will begin shortly.

Everyone will be muted for the first portion of the presentation, and you will be able to unmute yourself for the question/answer period.

You can type comments or questions into the CHAT feature at any time.

Live-captioning is available, use the link in the Chat window to connect to live-captions.



Funding Provided by:  
USDA Agricultural Marketing Service:  
Acer Development Grant

---

## UPCOMING WEBINARS

- **Sap-Only Enterprises** (September 15th), *Register Here- Sept. 15*
- **Binding Contracts and Legal Agreements** (September 29th), *Register Here- Sept. 29*
- **Maple Forests and Carbon** (October 13th), *Register Here- Oct. 13*
- **Northeast Forest Land Taxes and Programs** (October 27th), *Register Here- Oct. 27*

Visit the [Upcoming Events](#) page  
at [Maplemanager.org](http://Maplemanager.org) to register.



# THE BUSINESS OF SAP

09/15/2021

Chris Lindgren  
Forest Business Specialist  
[Christopher.lindgren@uvm.edu](mailto:Christopher.lindgren@uvm.edu)

\*1\_0 Category 1 Continuing Forestry Education Credit (CFE) available



Funding Provided by:  
USDA Agricultural Marketing Service:  
Acer Development Grant

## THE BUSINESS OF SAP

- I. Quick Review
  - I. What is a sap business?
  - II. Sap to syrup
- II. Research Notes
  - I. Opportunity in sap enterprise?
- III. Planning a maple sap business
  - I. Planning tools & resources
  - II. Business models



## GROWING MORE SAP BUSINESSES

- What is a sap business?
- Sap businesses sell syrup!
  - Develop retail markets
- Product innovation
  - Sap Beverages
- 90%+ maples not in production
- Lower investment into Maple

Establishments primarily engaged in gathering maple sap.

~10,000 Maple Farms  
in the US

## QUICK REVIEW: SAP >>>>>>>>> SYRUP

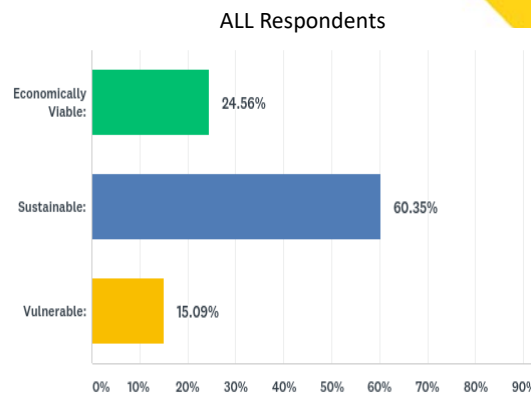
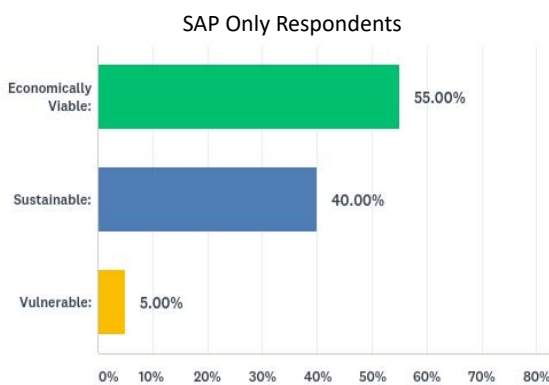
- Price of sap is directly connected to the price of syrup.
- Bulk prices are used to determine base syrup price
- Sap varies in quality effecting grade—light, amber, dark
- Sap sweetness varies effecting processing time- (sugar content %, Brix) and value per gallon of sap

## NORTHEAST PRODUCER SURVEY – DEMAND OPPORTUNITY?

- 67% of producers use RO
- As processors look to utilize production capacity, demand for sap and taps increases.



## NORTHEAST PRODUCER SURVEY – PROFITABILITY?



---

## QUESTIONS-THOUGHTS.



---

## PLANNING A MAPLE SAP BUSINESS- CONSIDERATIONS

- I. 2 Things
  - I. Sap
  - II. Buyer(s)
- II. Business planning
  - I. 1-page plan
- III. EST. 2021
  - I. Recordkeeping-Systems




## TOOLS & RESOURCES- ASSESSMENT

Developed by: Christopher Lindgren,  
The University of Vermont Extension, 2020

Assessment Checklist For Maple Sap Business Rating scale 1-3. Fractional ratings are OK

Resource assessment	Detail Description	Estimated Associated costs	SCORE	1	2	3
1 Tapping Density _____ taps per acre				1-19	20-40	40+
2 Acres available				<5	5-40	>40
3 Soil Types	<a href="https://www.vermont.gov/maps/for/atlas">https://www.vermont.gov/maps/for/atlas</a>			wet soil / poor drainage	too dry / somewhat poorly drained	Well drained / moderate drainage
4 Health & Quality of trees				Crown die back, thin crowns, numerous indicators of poor health	tree health mixed, canopy closed, few indicators of poor health	rapid tap hole closure, canopy not closed, healthy looking trees
5 Access	To sugarbush Within sugarbush			access from lengthy dirt road or through undeveloped ROW (could be a D.5) no existing trails difficult to cut and navigate	access from dirt road, existing or mostly easy trails to cut and navigate	access off or very near to, non muddy or paved road, existing/ easy to cut trails for infrastructure maintenance
6 Availabilities of Utilities	Electric Cell Coverage Internet			electric requires multiple poles, hard to access and maintain generator sites, coverage near by or at remote locations on property	Electric within 500', generator access requires maintenance, limited coverage on property	easy access minimal installation cost-no new poles or easy access to generator site, good solar site good coverage throughout woods
7 Grade of site				>15%	0-3% or 8-15%	3-8% (8 slopes)
8 Land Management History	Management needed now Forest Composition			significant thinning and understory management needed ~50% tappable maple, mature trees, low regeneration, high % Red maple	light to medium thinning in canopy and understory ~50% sugar maple, mixed age stand, moderate regeneration, some Red Maple	little or no thinning or understory management needed 70-80% sugar maple, mixed age stand, strong regeneration,
9 Distance to customer	collection site to customer Road condition			>20 miles Bad roads, Hills to climb	10-20 miles good roads min. grade	<10 miles Easy drive, paved flatish
10 Expansion potential				Lone sugarbush <10limited or no nearby expansion possible	Large parcel available to expand into >50 acres, some nearby expansion potential	Large parcel >100acres and/or significant stubler expansion possible



## PLANNING A MAPLE SAP BUSINESS-PLANNING RESOURCES

### Sugar Bush Lease Agreement


### Contracts & Lease Templates

- Land/tap rental
- Sap Purchase/Sale
- Landowner partnerships and relationships

Preamble and Statement of Purpose:

THIS AGREEMENT ("Agreement") is entered into this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, between \_\_\_\_\_, hereinafter referred to as LESSOR and \_\_\_\_\_, hereinafter referred to as LESSEE to lease maple trees for tapping and production of maple syrup.

*Parties to the Agreement: The Agreement should identify the Lessor using the name of the land owner as provided on the deed and recorded in the town land records. If title is in doubt, check the town land records. An entity should be described as COMPANY NAME, LLC, a Vermont Limited Liability Company. The person signing for the entity should have the authority to do so under a written operating agreement. If the landowner is a trustee of a trust, the LESSOR*





## MARKETING SAP-FINDING BUYERS

- Business to Business B2B
- Market Access
- Trucking-cost of trucking
  - Distance
- Sap Quality factors
- Pricing-
  - Sap pricing calc
  - Barter trade



## MARKETING SAP-PRICING

- Many pricing guides
  - [UVM Sap Pricing Calculator](#)
  - [Cornell Sap Buying spreadsheet](#)
  - <https://www.ohiomaple.org/sap-app.html>
- Agreements & Contracts
  - Quality, Quantity
  - Timing of delivery/pick up and payments
  - Weights & Measures-Record keeping

SAP PRICES  
DELIVERED TO BASCOM'S SUGAR HOUSE  
2017

SUGAR %	\$/ GAL	SUGAR %	\$/ GAL
0.8	0.10	3.30	0.55
0.9	0.12	3.40	0.57
1.00	0.14	3.50	0.58
1.10	0.16	3.60	0.60
1.20	0.18	3.70	0.62
1.30	0.20	3.80	0.63
1.40	0.22	3.90	0.65
1.50	0.24	4.00	0.66
1.60	0.26		
1.70	0.28		
1.80	0.30		
1.90	0.32		
2.00	0.33		
2.10	0.35		
2.20	0.37		
2.30	0.38		
2.40	0.40		
2.50	0.42		
2.60	0.43		
2.70	0.45		
2.80	0.47		
2.90	0.48		
3.00	0.50		
3.10	0.52		
3.20	0.53		

PAYMENT WILL BE MADE ACCORDING TO THE ABOVE PRICES OR IF DESIRED, SYRUP CAN BE EXCHANGED IN LIEU OF CASH AT CURRENT WHOLESALE PRICES IN JUGS OR BULK PRICES IN DRUMS. THE ABOVE PRICES ARE BASED UPON RECEIVING THE ENTIRE CROP OF SAP FROM BEGINNING TO END THAT WILL PRODUCE SALEABLE TABLE GRADE SYRUP. WE RESERVE THE RIGHT TO REJECT OR PAY A LOWER PRICE FOR ANY SAP FROM OTHER SUGARHOUSES SELLING ONLY THEIR SAP AT THE END OF THE SEASON.

BASCOM MAPLE FARMS  
835-6361  
56 SUGAR HOUSE RD  
ALSTEAD, NH 03602



# TOOLS & RESOURCES CALCULATORS



MAPLE MANAGEMENT



## CALCULATE PROFIT/LOSS OF SAP HAULING

### STEP 7 OF 4 REVENUE FROM HAUL

Name of Your Operation

Price Received per Gallon of Sap \*

\$ 0.00

Gallons Hauled \*

[NEXT PAGE](#)



## QUESTIONS-THOUGHTS.





## SAP BUSINESS MODELS

1. **Gather and sell Maple sap**
  1. From your own trees
  2. Rent trees
2. **Trade sap for syrup**
  1. Increase income with retail sales
3. **Innovate**
  1. What's your business model?
4. **Key expenses**
  1. Woods lease or own
  2. Labor (Do you want to make \$)
  3. Investment and equipment



## BENCHMARK ECONOMICS AND BUSINESS MODELS

Sales potential from the land:

TAP #	SAP Produced	Gross Sales 10 gals/ sap per tap	Gross Sales 20 gals/ sap per tap
1,000	~10,000-20,000	<b>\$3,000</b>	<b>\$6,000</b>
5,000	~50,000-100,000	<b>\$15,000</b>	<b>\$30,000</b>

## BENCHMARK ECONOMICS AND BUSINESS MODELS

### Sales potential from the land

TAP #	SAP Produced	Gross Sales 10 gals/ sap per tap	Gross Sales 20 gals/ sap per tap
1,000	~10,000-20,000	<b>\$3,000</b>	<b>\$6,000</b>
5,000	~50,000-100,000	<b>\$15,000</b>	<b>\$30,000</b>

### Labor in the woods ~0.10hr. per tap

TAP #	Annual labor	Labor expense \$20 hr.	
1,000	~100 hours	<b>\$2,000</b>	
5,000	~500 hours	<b>\$10,000</b>	



## BENCHMARK ECONOMICS AND BUSINESS MODELS

### Sales potential from the land

TAP #	SAP Produced	Gross Sales 10 gals/ sap per tap	Gross Sales 20 gals/ sap per tap
1,000	~10,000-20,000	<b>\$3,000</b>	<b>\$6,000</b>
5,000	~50,000-100,000	<b>\$15,000</b>	<b>\$30,000</b>

### Labor in the woods ~0.10hr. per tap

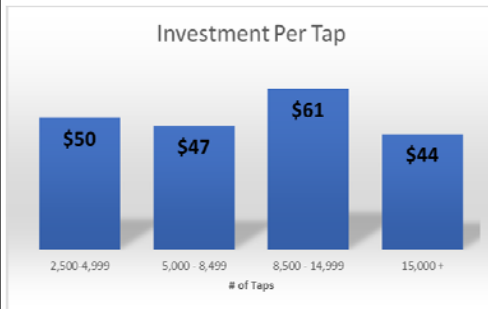
TAP #	Annual Production labor	Labor expense \$20 hr.	Remainder for operations and investment
1,000	~100 hours	<b>\$2,000</b>	<b>\$1,000-\$4,000</b>
5,000	~500 hours	<b>\$10,000</b>	<b>\$5,000-\$20,000</b>



## Investment (not including forest land)

UVM Maple Benchmark Group

Sap Only



- Collection system
- Vacuum Pumps
- Electricity-generator
- Monitor system
- Transportation
- Equipment
- Reverse Osmosis
- Sap Shacks

Average = \$30 per tap/\$3.00 per tap per yr.



## Access to Forest Land

Forest Land Investment

@ 60 taps per acre 1,000 taps requires 16 acres

1 Acre = \$750                      16 Acres = \$12,000

1 Acre = \$1,500                  16 Acres = \$24,000

Loan Repayment

\$12,000 @ 5 %, 10 years = **\$1,527 per year**  
 = **\$127 per month expense**

Do you Already have land?

Can you lease land or taps?

**What's the production potential?**

**Is the land worth the cost?**




## TOOLS & RESOURCES- ASSESSMENT

Developed by: Christopher Lindgren,  
The University of Vermont Extension, 2020

Assessment Checklist For Maple Sap Business Rating scale 1-3. Fractional ratings are OK

Resource assessment	Detail Description	Estimated Associated costs	SCORE	1	2	3
1	Tapping Density _____ taps per acre			1-19	20-40	40+
2	Acres available			<5	5-40	>40
3	Soil Types <a href="https://www.vermont.gov/maps/for/atlas">https://www.vermont.gov/maps/for/atlas</a>			wet soil / poor drainage	too dry / somewhat poorly drained	Well drained / moderate drainage
4	Health & Quality of trees			Crown die back, thin crowns, numerous indicators of poor health	tree health mixed, canopy closed, few indicators of poor health	rapid tap hole closure, canopy not closed, healthy looking trees
5	Access To sugarbush Within sugarbush			access from lengthy dirt road or through undeveloped ROW (could be a 0.5)	access from dirt road, existing or mostly easy trails to cut and navigate	access off or very near to, non muddy or paved road, existing/ easy to cut trails for infrastructure maintenance
6	Availabilities of Utilities Electric Cell Coverage Internet			electric requires multiple poles, hard to access and maintain generator site, coverage near by or at remote locations on property	Electric within 500', generator access requires maintenance, limited coverage on property	easy access minimal installation cost-no new poles or easy access to generator site, good solar site, good coverage throughout woods
7	Grade of site			>15%	0-3% or 8-15%	3-8% (8 slopes)
8	Land Management History Management needed now Forest Composition			significant thinning and understorey management needed	light to medium thinning in canopy and understorey	little or no thinning or understorey management needed
9	Distance to customer collection site to customer Road condition			>20 miles Bad roads, Hills to climb Lone sugarbush <10limited or no nearby expansion possible	10-20 miles good roads min. grade	<10 miles Easy drive, paved flatish Large parcel >100acres and/or significant bluffer expansion possible
10	Expansion potential					




## 2021 ACER DEVELOPMENT GRANT

### Environmental and Economic Benefits from Sap Business Promotion

Business model innovation and industry development have piqued interest in starting up businesses that primarily produce and sell sap. Awareness of the environmental benefits of forests managed for carbon sequestration has also increased. Combating climate change with forest management, provides an opportunity to manage forests as carbon sinks and as sap producing “working forests”. This approach supports economic development and environmental improvement in rural forest communities.

New and existing producers seek guidance on the economic benefits and liabilities associated with a “sap-only” business model. This project will collate, compile, and develop resources on the economic and environmental benefits of operating sap-only enterprises. We will produce planning tools and resources needed to help businesses manage for carbon and for profitability. We will engage in outreach activities, presentations, webinars, classes, online formats, to share resources and educate landowners and prospective sap producers.



---

---

## THANK YOU

USDA Agricultural Marketing Service: Acer Development Grant

Thank you to collaborators & those whose work we have built on



## THE BUSINESS OF SAP

Chris Lindgren  
Extension Educator  
Forest Business Specialist  
[Christopher.lindgren@uvm.edu](mailto:Christopher.lindgren@uvm.edu)



## QUESTIONS ?