

MAPLE SYRUP

DIGEST



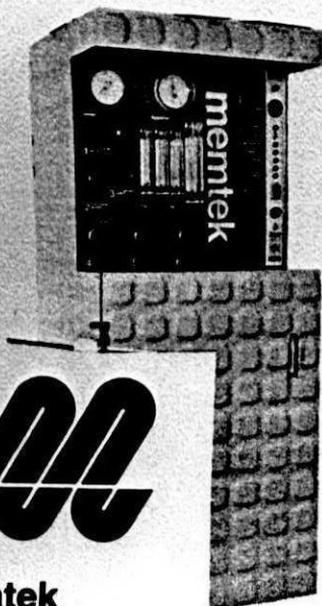
Vol. 22, No. 1

February 1982

BULK RATE
U. S. POSTAGE PAID
BAINBRIDGE, N. Y.
PERMIT NO. 12

Address Correction
Requested to:
Bainbridge, N. Y. 13733

MEMTEK REVERSE OSMOSIS



memtek
CORPORATION

1435 Prince of Wales Drive
Suite 1008
Ottawa, Ontario
K2C 1N5

59 rue Rouen
Touraine, Quebec
J8T 1G9

(613) 224-8414

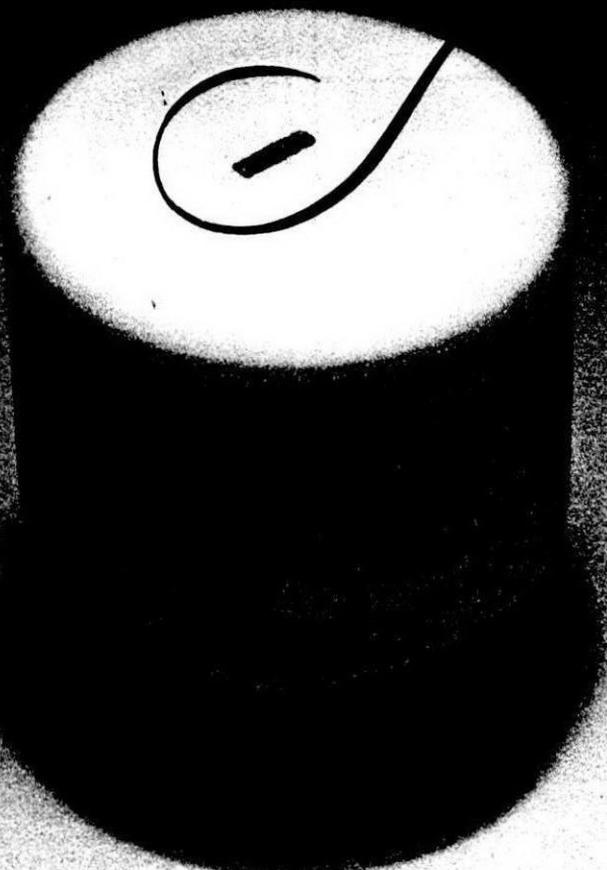
Bill Coombs
Box 186
Wilmington, Vermont 05363

Our equipment was developed with maple syrup producers in mind. Three model series are available: **MRO 50/200** is an electrically powered refrigerator-sized unit; **MRO 400/800** is also electrically powered and suited to larger operations of up to 25,000 TAPS; **MRO MOBILE** is a self-contained, diesel-powered unit, designed for power-deficient areas.

All equipment was designed around our vertical membrane concept, permitting easier draining and cleaning of the system. Other special features include: insulation, internal heater, simple instructions, concentrate control valve, readable gauges and meters, automatic safety and shut-down controls, as well as dependability.

KRESS originator of the
packaging alternative.

*Looking for the Tops?
Check out the Bottoms...*



Get the best jug for your syrup
(and your money).

If the bottoms say Kress, you've got the tops.

KRESS

CREATIONS, INC. 349 Christian Street • Oxford, CT. 06483 (203) 264-9898

THE MAPLE SYRUP DIGEST

Published & Edited by: Lloyd H. Sipple
R D # 2
Bainbridge, N. Y.
Phone: 607-967-8331

Published four times a year.
(Feb., July, Oct., Dec.)
Postage
Paid at Bainbridge, N. Y. 13733
Mailed outside our circulation
area for \$3.00 per Year.



Printed by:
YORK MAIL-PRINT
Mill & Watson Sts., Box 488
Unadilla, New York 13849

NORTH AMERICAN MAPLE SYRUP COUNCIL DIRECTORY OF OFFICERS

Russell Davenport Chairman
Shelburne Falls, MA 01370
413-625-2866
Gordon Gowen Vice-Chairman
Alstead, NH 03602 603-835-6531
Michael Girard Secretary-Treasurer
Simsbury, CT 06070 203-658-5083

DIRECTORS

Orlando Small 207-778-2404
Farmington, ME 04938
John Kroll 612-732-2575
Long Prairie, MN 56347
Terry Healey 616-582-7683
Charlevoix, MI 49720
J.L. Maxwell Spicer 902-392-2823
Spencers Island, N.S. BOM 1S0
Arthur Merie, Jr. 716-535-7136
Attica, NY 14011
Ture Johnson 216-834-4206
Burton, OH 44021
Ronald Shaw 705-325-6878
Hawkestone, ONT LOL 1T0
Edward Curtis 717-253-3759
Honesdale, PA 18431
Wilson "Bill" Clark 802-325-3203
Wells, VT 05774
Adin Reynolds 715-449-2057
Aniwa, WI 54408

COVER PICTURE

Sugar House
West Side of Autoroute
North of Montreal

DIGEST ADVERTISING RATES

2 Page Spread . . . \$335.00
Full Page 180.00
1/2 Page Vert. or Hor. 100.00
Column Inch. 14.50
Classified50 per word
Deadline for copy -
First of month preceding
Issue

FILTER BAG LINER

SAVES TIME
INCREASES LIFE OF BAGS



No need to remove filter bag from
syrup filtering tank. Just remove liner
from bag, rinse out solids in hot or
cold water and replace. Liner has long
life with careful use.

KOPEL FILTER PAPER COMPANY

2538 S. Damen Avenue, Chicago, Ill. 60608
Serving the Maple Syrup Industry
more than 25 years

Editorial

The first issue of the Digest came out in January, 1962. (See "History" in next issue). This means we have now completed 20 years and I hope this issue starts another twenty.

We started with the intention of mailing it free to every maple producer, the advertising to pay the bills. We soon found we needed some help and asked our readers for contributions. One by one the state associations joined in by sending \$2.00 for each of their members. This worked very well and we have been getting along fine for the last few years.

Then last July I received a shock. The Vermont Association decided they would not support the Digest any longer. I was instructed to take everyone's name off the list who did not send in their own contribution!

I thought about it all summer and talked with a good many other people about the situation. I finally decided to do nothing, at least not yet. Less than one third of the Vermont producers are members of their association in the first place, and I doubt very much if many of them know what has happened. I decided to keep on sending it to everyone as long as I can afford to.

Which brings me to the nitty-gritty of this editorial. All you maple producers, not only Vermonters but from any state, who do not belong to a state association that supports the Digest, please use the envelope in the center of this issue. If it's worth \$2.00 a year or \$5.00 for three or whatever you wish, send it now. If it's worth nothing to you, send nothing, but please, ask to have your name removed

from our list. This is the only way we have of knowing who wants it and who doesn't.

The system has kept the Digest going so far without the bother of compulsory subscriptions. With your cooperation it will still work. And with today's prices, it's probably the best deal you can get for five bucks.

American Maple Museum

by
Hugh Worden

The 1982 Lewis County Maple Festival will be held on Saturday and Sunday, May 15 and 16, at the new American Maple Museum building in Croghan, New York.

There will be a continuous bill of events for both days topped by the induction of some worthy persons into the Maple Hall of Fame. This is one event everyone can participate in.

We urge every maple producer to send their nomination, with a brief resume of that persons activities in connection with the maple industry to: The American Maple Museum, Box 299, Croghan, New York, 13327. Nominations must be postmarked before March 15, 1982.

BUDDY SYRUP

Convert to marketable grades
by new FDA approved process
For information and prices contact
CLAUDE HILLS, Consultant
Flourtown, Pa. 19031
(215) 233-0132

Smada Farms Inc.

John & Ellen

Read & Elaine

"YOUR MAPLE SUPPLIES HEADQUARTERS"

WE HAVE: Everything you will need to make
Pure Maple Syrup this Spring.

Large inventory of Sugar Molds,
Cello Bags, Sugar Boxes, etc.

WE CARRY: Grimm - Lightning Evaporators,
replacement pans, New & Used

Lamb Tubing - Fittings

Kress Jugs - all sizes

Syrup Cans - all sizes

Small Brothers Equipment

HAVE INFORMATION ON REVERSE OSMOSIS

Buy and sell Bulk Syrup

Used Equipment

BUMPER STICKERS • COOK BOOKS • BOOKS ABOUT MAPLE

Call or write us. If we don't have it we'll try and find it.

Our hours are: Mon - Fri. 10:00 - 5:00 Sat. 8:00 - 5:00

Wed. Evening 7:00 - 9:00 Closed Sunday

STAR ROUTE

GREENE, NEW YORK 13778

ROUTE 41N

PHONE 607-656-4058

WAY BACK WHEN - - -

During the holidays I did some reminiscing about things my father told me years ago. Thought they might be interesting to some of you or bring back some memories.

My great grandfather immigrated here from Germany in the early 1800's. Before he came over he sent \$5.00 to a friend to buy some land to settle on. The friend purchased a quarter section (160 acres) of fairly level land on top of a mountain near Obernburg, Sullivan Co., N. Y. It was covered with woods, mainly virgin hemlock and sugar maple. To make a living he cut the hemlock, 3 to 4 foot diameter, peeled the bark and sold it to a tannery. The logs were left in the woods to rot since there was no market for the lumber.

In the early 1900's, when dad was about 18, his father sold some of the hard maple to be cut for butcher blocks. They cut nothing under 30" DBH and some went as much as 5 feet. The blocks were cut 3' long (enough to make two butcher blocks) and Dad hired out to haul them to the railroad with his team and wagon, 6 blocks making a load. He said it was such good quality maple he never saw a heart that was too big to cover with a silver dollar. Trees just don't grow that way any more.

They made maple syrup about every year but it wasn't worth much. The first sap pan they had was made of wood sides with a sheet of black iron nailed to the bottom and bent

up around the edges a little. Boiling water with a little gluten in it for a day or two kept it from leaking most of the time the rest of the season.

One year they hung 300 buckets and had a pretty good crop. His mother boiled it all down and made hard sugar from the entire crop, making 5 to 10 lb. cakes in bread tins. When they were through he loaded it in the wagon and took it to a store in Fremont Center where he traded even for a walking plow. The price tag on the plow was \$9.00 and he thought it was a good deal.

Well, anyway, the dollar is worth a lot less than it was then. Maybe those were the "good old days" but since I can't go back there anyway, I'll make the best of what I've got now.

Hope you all have a good crop this year.

The Editor

**EVERYTHING FOR THE
MAPLE PRODUCER**
**Grimm, Lightning Evaporators,
Lamb Tubing and Supplies,
Bacon and Kress Jugs.**
ORDER EARLY AND SAVE
HAROLD TYLER MAPLE FARMS
607-638-9474 Westford, N. Y. 13488

**APPROVED LABELS FOR
MAPLE SYRUP, CREAM & SUGAR**
No more Hand-stamping
Everything on 1 Pressure-Sensitive
Label or Tape for use on
Metal, Plastic or Glass Containers
ATTRACTIVE COLORS—ALL SIZES
For Prices and Samples write to
WILLIAM L CHALMER
150 Traverse Blvd. Buffalo, N. Y. 14223

E-Z Tach

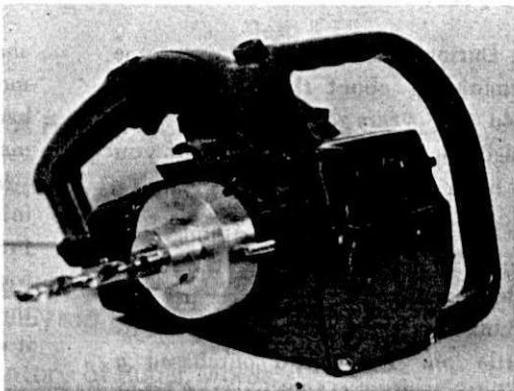
TAPPERS

to fit most chain saws

MODEL A

Fits most Homelites, Stihls, Poulan and McCulloch, etc.

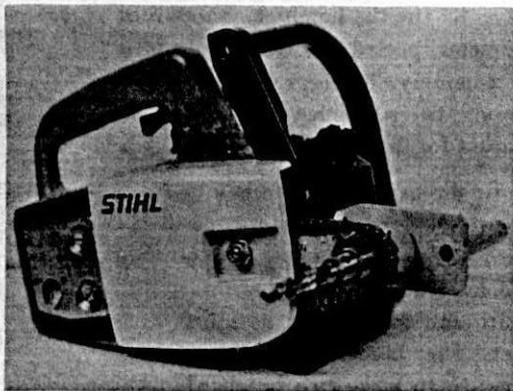
This model fits most saws with outboard clutch. Comes with one 7/16 left hand bradpoint bit and allen wrench. \$50 plus \$2 for shipping cost. Extra 7/16 bradpoint bits....\$7 each.



MODEL B

With the unit on the saw and the sawdust guard in place, hold the tapper and pull the chain tight, then tighten the bar nuts.

This model fits most chain saws. Runs with a short piece of saw chain. Has a short fork in place of a saw bar with another sprocket out front. \$85 plus \$2 for shipping cost. Extra bradpoint bits, \$7 each. Comes with 7/16 left hand bradpoint bit.



IMPORTANT!

Make sure we have make, model and chain pitch. PLEASE!

Nelson Maine, Rt. 1, Henniker, N.H. 03242
(603) 428-7284

ANNUAL MAPLE AWARD

"An annual monetary award has been established by the Vermont Maple Industry Council and the Vermont Sugar Makers Association.

The award, honoring the late James Wallace Marvin, who formerly was Professor and Chairman of the Botany Department of the University of Vermont, will be given to an outstanding student who has completed a project which has substantially contributed to sugar maple research.

The 1981 award was presented at Honors Day of the College of Agriculture to Laura Spry by Dr. Hubert Vogelmann, Chairman of the Botany Department.

Laura was an outstanding senior in biological sciences of the College of Agriculture. Her meritorious project, supervised by the faculty and staff of the UVM Maple Research Laboratory, involved identification in maple of many species of fluorescent Pseudomonas microorganisms responsible for color and flavor changes in maple sap."

MariaFranca Morselli, Ph.D.
Research Associate Professor



BAIN-GIRARD & CO.
MICHAEL GIRARD
GREG GIRARD

NEW & USED MAPLE SUGARING EQUIPMENT

We Are Agents For:

- **SMALL BROS. EVAPORATORS**
- **LEADER EVAPORATOR CO.**
- **TEKNIK EVAPORATORS**
- **MARELCO TUBING & FITTINGS**
- **U.S. MAPLE TUBING & FITTINGS**
- **KRESS JUGS**

Please Write For A Used Equipment Price List

11 VILLAGE ROAD • SIMSBURY, CONN. 06070
PHONE (203) 658-5083 or (203) 658-0270

SMALL BROTHERS INC.

Dunham, Quebec, Canada. Telephone (514) 295-2451

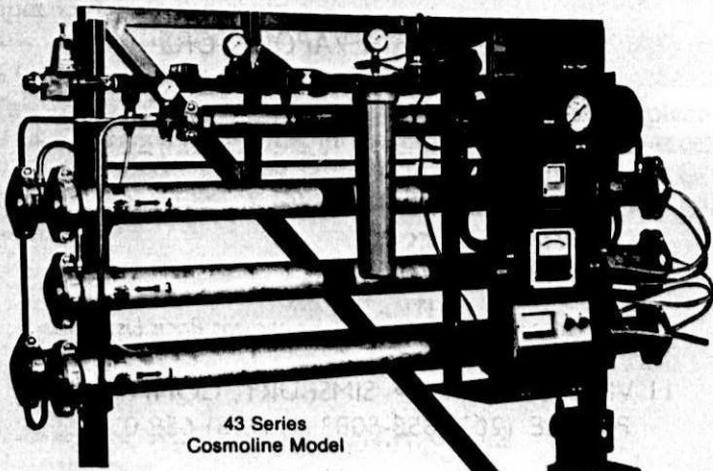


Manufacturers of
Quality
Maple Equipment

REVERSE OSMOSIS

Official Distributor for

OSMONICS, INC.



43 Series
Cosmoline Model

SAP PRICES

Each year in the February issue, we publish a chart of the sap prices paid by one New York Producer for the past year and the proposed price to be paid in the coming season along with the respective retail and wholesale price of syrup in consumer packages.

Please remember, this chart is published to be used only as a guide and the Digest in no way intends that it should dictate the price paid for sap by any producer.

Year	1981	1982
Retail	22.00	24.00
Wholesale	16.50	18.00
Sap Brix	per. gal.	per. gal.
1.5	.034	.037
1.6	.048	.055
1.7	.062	.07
1.8	.076	.084
1.9	.089	.097
2.0	.10	.109
2.1	.11	.12
2.2	.119	.129
2.3	.127	.138
2.4	.136	.147
2.5	.142	.155
2.6	.151	.164
2.7	.158	.172
2.8	.166	.18
2.9	.173	.188
3.0	.18	.196
3.1	.188	.204
3.2	.196	.212
3.3	.203	.22
3.4	.210	.288
3.5	.217	.236
3.6	.224	.244
3.7	.232	.252
3.8	.239	.26
3.9	.246	.268
4.0	.254	.276

Think of Cook's for all your Maple Syrup Supplies

OUR STOCKS ARE
COMPLETE EARLY.
ORDER NOW

WE STOCK

Leader-King Evaporators
Sap Buckets, Covers
(new and used)
King Plastic Sap Bags
Syrup Cans
Tappers, Bits, Spouts, Filters,
Rubber Candy Molds
(asst. Patterns)
Storage and Gathering Tanks
Maple Cream Tubs
Syrup Bottles
Lamb Tubing & Fittings
Pellets
Sugarhill Plastic Jugs
Kress Plastic Jugs

Write for Free Catalog

H.W. Cook Farm Service, Inc.

Open Mon-Sat 8-5

Serving the Maple Industry for
59 years

Phone: 315-852-6161
DeRuyter, N. Y. 13052

COST OF PRODUCTION - 1981¹

DIRECT COSTS ²	1981	1974
Advertising Dues	.03	.02
Bottled Gas	.08	.05
Container	1.15 ³	.56
Equipment (Rental) 250 hours	.83	.50
Filters	.03	.02
Fuel (Oil)	4.09 ⁴	1.80
Labor (1.1 hours @ \$3.75/hr.) ⁵	4.13	3.30
Machine Operating Costs-repairs, fuel, etc.	.37	.22
Supplies	.12	.07
Utilities	.08	.05
Subtotal (direct)	10.91	6.59

OVERHEAD

	1981	1974
Investment \$16,250 invested in 25 acres of trees (\$650/A) ⁶		(\$16,250)
2,500 invested in camp		(1,500)
3,300 invested in processing equipment		(2,000)
5,000 invested in collection equipment		(5,000)
\$27,050 current investment		

	1981	1974
Expected rate of return on investment (12%)	6.49	3.40 (7.5%)
Depreciation \$1,455÷500	2.91	1.66
Taxes ⁷	.19	.19
Insurance ⁸	.02	.02
Subtotal (Overhead)	9.61	5.27
TOTAL COST	\$20.52	\$11.86

¹ Prepared by J. Finley, EFRS, from cost figures provided by the Somerset Maple Producers Association and analyzed by J. Bochy, J. Cooper, and E. Farrand of the Pennsylvania Cooperative Extension Service in 1974. 1981 estimates are derived by using the percent average annual rate of inflation compounded over the period 12/74 to 12/80 as derived from the Consumer Price Index, which is 8.8% or (1.088)⁶ for the period.

² Costs were computed from a bush of 2,000 taps with an annual syrup production of 500 gals.

³ Estimated 1981 price for State Council tin cans.

⁴ 3.9 gallons at \$1.05 per gallon.

⁵ \$3.75/hr., the current minimum wage.

⁶ Land costs were held constant to more closely represent state average value.

⁷ Taxes were held constant; see local assessments for your costs.

⁸ Insurance held constant; see local rates for your costs.

Syrup Prices

The following is a suggested method of pricing maple syrup for sale in small packages. The method is based on an established price for a gallon of syrup, and is expressed as a percentage of that price. For example, the table below suggests that a pint, even though it is only one-eighth of a gallon, might be priced at 20 percent of the gallon price. If a gallon package were priced at \$20.00, a pint would be 20 percent of \$20.00, or \$4.00.

The first set of "percentage of gallon" factors, (A), can offer some profit on the smaller retail units. They include consideration of container costs, labor cost, possible syrup loss due to spillage or filtration, and capital costs. The second set of factors, (B), is more conservative and may be appropriate for producers with efficient packaging methods or wholesale marketing of larger volumes in more competitive markets.

	(A)	(B)
Gallon	100%	100%
Half-Gallon	56%	53%
Quart	33%	28%
Pint	20%	16%

IN STOCK
U. S. MAPLE TUBING SUPPLIES
 Serving central and
 central northern New York
Frank Brodie
 County Rt. 34 at South Valley
 Westford, N.Y. 13488 607-264-3225

At today's prices, the (B) factors do little more than recover the added costs of small containers. If, for example, unpackaged maple syrup is valued at \$20.00/gallon and gallon and quart containers cost \$1.40 and \$.90 respectively, the added cost of the quart container is just recovered with a price of 28% of a gallon.

Cost of gallon (syrup & Container)

$\$20.00 + \$1.40 = \$21.40$

Cost of quart (syrup & Container)

$\$5.00 + \$.90 = \$5.90$

$\$5.90$ divided by $\$21.40 = .276$ or nearly 28%.

These percentage factors are given as suggested guidelines only. The costs of packaging and retailing maple syrup will vary with individual producers.

By
 Robert R. Morrow
 Lewis J. Staats

**SHOW OFF YOUR FANCY
 SYRUP IN**

JUGS BOTTLES JARS

**MAPLE PRODUCTS SELL
 BEST IN GLASS**

WE ALSO CARRY MANY
 TYPES OF PLASTIC CONTAINERS

INCLUDING THE KRESS JUGS.

Send for complete list.

M. R. CARY CORPORATION

P. O. Box 122
 Salina Station
 Syracuse, N. Y. 13208

FROM
THE
CHAIRMAN



Problems arise in agriculture from many causes. One of the most severe problems now is attacking the very source of our existence. Those darn bugs that are eating the Maple trees.

The pests come mainly in the form of the Gypsy Moth caterpillar. Not only may they defoliate and eventually kill our trees but they sap the vigor of the tree and leave it susceptible to all kinds of virus, blight, canker and acid rain. All this is even more damaging in regions where soils are poor and the health of the tree may not be good in the first place.

Here in Massachusetts the end of serious devastation may be in sight because the virus that kills the Gypsy is taking hold.

I think an even more serious problem is the saddle back prominent which just loves maple and usually feeds in July when the leaves have not had a chance to do their life giving work. Then, after defoliation, the new releaf is tender and early fall frost will kill the leaf and the next year's leaf bud as well. Let's get our Forest Service and Departments of Natural Resources in gear and save our industry.

If you are worried about an over supply of syrup, remember the best cure is to get out and sell syrup. It can be consumed only once.

Russ Davenport

SCHOHARIE CO MAPLE FESTIVAL

The 17th Annual Schoharie County Maple Festival will take place in Jefferson, N.Y. on May 1 and 2, 1982.

Besides the maple tree tapping and sap gathering demonstrations there will be art and craft sales and an operating saphouse. Maple sugar and cream will be manufactured on the site and a Maple Queen contest will be held on Sunday.

The 15th Albany Co. Militia will have an encampment at the Festival. Demonstrations of Revolutionary War Tactics and a re-enactment of the Sappush Massacre will be given.

For information write: Schoharie Co. Maple Festival, Box 24, Jefferson, N.Y. 12093.

MAPLE SYRUP SEASON

Once again when Spring is near,
My thoughts go back to yester-year,
With team of horses in the sled
We'd hurry to the sugarhouse shed.

Piled high with buckets and the spiles,
We'd scatter them, it seemed for miles,
And then the drill to make the tap,
Hang the pail to catch the sap.

Barrel and barrel of that sweet stuff,
Gathered together till we had enough,
To start a fire "good and hot",
Wood and coal it took a lot.

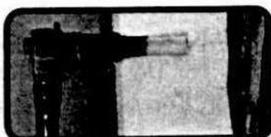
Maple syrup, what a treat,
It tastes so good and is so sweet,
It could give you a stomach ache,
Don't eat to much, for your own sake.

Sam A. Gingerich
Utica, Ohio



Vacuum tubing system ...for maple sap gathering

the system which can double the yield
of your sugar bush



The sap is taken from the tree with use of a 5/16" threaded spigot. The sap then flows through 5/16" tubing to the main lines.



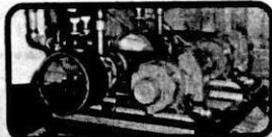
A double fork is used to connect the 5/16" secondary lines to the main line.



The main lines convey the sap to the sugar house.



In the sugar house, the sap flows into a vacuum release tank, which is connected to a pressure regulating tank.



Vacuum pumps are used to create a suction in the release tank. This vacuum action causes the sap to flow through the tubing to the sugar house at increased flow.



A float device either electronic or mechanical is needed inside the release tank to determine when it is full. The sap is then transferred into a large reservoir for storage, until fed into the evaporator.

Exclusive features

New threaded spigot, equipped with grooves at the intake, serves to draw the sap from the new growth layers of the tree. As a result of numerous tests conducted at our experimental sugar bush, we have determined that spigots with grooves at the intake will increase flow rate by 20 to 30% over ungrooved spigots.

New spigot cap, threaded to fit the spigot. After sap flow ceases, this completely closes off the spigot, allowing the system to be easily cleaned and flushed in the bush.

New hardness controlled 5/16" tubing, reinforced with lateral ribbing which prevents its collapse, such as when sharply bent around a tree or used under high vacuum pressure. It will also withstand high pressure needed during cleaning.

Advantages in comparison to buckets

The IPL VACUUM TUBING SYSTEM can easily double the

yield of your sugar bush.

Once installed, the IPL VACUUM TUBING SYSTEM requires little maintenance and only 33% of the manpower necessary for the old method of collection in buckets.

The IPL VACUUM TUBING SYSTEM greatly improves the quality of end products, because the sap is conveyed rapidly inside the tubing to the sugar house, and is protected from deterioration caused by weather and handling.

Free professional service

A most important point is that the IPL specialist estimates at **no cost** the needs of each sugar bush. In order to insure maximum production, our company provides **free of charge** an expert team to assist the producer in the initial installation of the system.

It is **absolutely essential** that a company provides this service to the producer.

For additional information, phone or mail this coupon.

- Yes, I would like to receive your catalogue and price list
- Have your representative visit me as soon as possible

Name _____

Address _____

Zip code _____

Tel. (_____) _____

Number of taps _____



HEAD OFFICE
PROVINCIAL INDUSTRIES LTD
140 COMMERCIALE, ST-DAMIEN
BELLECHASSE, Q.U.E., G0R 2Y0
TEL (418) 789-2880
TELEX 051-3973

U.S.A. BRANCH
IPL PRODUCTS, LTD
RTE 9 NORTH, P.O. BOX 501
PLATTSBURGH, N.Y. 12901
TEL (518) 561-8260
TELEX 937-497

LETTERS:

Dear Mr. Sipple:

I was interested in Mr. Lamb's letter in the December 1981 issue of the Digest (Vol., 21, No. 4). As a forest entomologist involved in northern hardwood research, I, too, am concerned about sugar maple defoliation and decline. I thought Mr. Lamb might be interested to know that current research at the College of Environmental Science and Forestry addresses some of these problems.

I have spent the past seven years monitoring sap quality and diameter growth of sugar maple in relation to saddled prominent defoliation. Ultimately, we will provide sugar bush operators with information on how much defoliation it takes to render a tree or sugar bush inoperable. Most of our work is done in upstate New York (Lewis and St. Lawrence Counties), but we enjoy close cooperation with forest protection agencies in Vermont and New Hampshire as well. I hope in the not too distant future that we can implement a regional survey and detection program for saddled prominent. This would give operators more lead time to make management decisions.

The sugar maple borer is another forest insect that we are interested in. A study recently completed in St. Lawrence County indicates that borer damage is more extensive (i.e., number of infested stems/acre) than originally thought. Much damage is cryptic and goes undetected until logs are milled. Our intent is to provide land owners with a descriptive guide that will make it easier to identify borer damage.

Presumably, these trees should be discriminated against in thinnings, firewood sales, etc. We feel that this is one way to improve the quality of future stands.

Even though our work has suffered from lack of funding, we will continue to pursue these problems and help sugar bush operators to deal with forest pest problems.

Sincerely,
Douglas C. Allen
Professor, Forest Entomology

State University of New York
College of Environmental Science
and Forestry
Syracuse, N. Y. 13210



**Bascom's
Sugar House**
Alstead, N.H. 03602

Sugarin' Supplies

New & Used. Small Brothers'
Lightning Evaporators, buckets,
tanks, drums & supplies.
Osmonics R. O. Units.
U.S. Maple tubings & fittings
Bulk, wholesale, retail syrup
& custom packaging.



**Ken
(603)
835-2230**

**Bruce
(603)
835-6361**

U.S. MAPLE

Owned and operated by Sugarmakers.

Sugarmakers with extensive tubing experience, concerned about quality and service. All items are: • Guaranteed against defects of any kind. • Completely interchangeable with other brands allowing you to trade up a section at a time. Fittings are: • Made from a new formula. Dupont ST 801 Nylon for low temperature and impact strength. • Designed not to pull apart. • Rugged, most plastic per fitting on the market. • Vacuum tight.

MOLDED CLIP

• Makes rolling and storage of tubing easier.



SPOUTS

• For removal use 1" wrench or hammer.
• Black color aids in rapid taphole thawing.

SPOUT-PLUG

interconnection between "T" and spout
• Tight seal with spout allows pressure or vacuum washing of tubing in place.



"T's"

• Tapered "T" with smaller first ridge for easier tubing insertion.



CONNECTOR

• Will not pull apart.



SPOUT-PLUG

TUBING

STANDARD I.D. is standard for complete interchangeability.

Green translucent color. Minimizes ultra violet sunlight deterioration. Blends with nature in summer for year around lines.

NEW!

SUPER-COLD. Same characteristics as above and has a broader temperature range in which elasticity remains the same. Excellent for cold weather use and reduces extreme sags in warmer weather.



U.S. MAPLE INC. Bruce Bascom, Bascom's Sugar House, Alstead, NH (603) 835-6361, 835-2230. Hilton Foote, Middlebury, Vt. (802) 462-2472, Aaron Hall, Maple Syrup Supplies, Pottsville, MI (517) 694-9593, 645-7305, Charles Hoag, West Chazy, NY (518) 493-5444.

Our Factory

*Ample Space
Manufacturing
Maple Syrup
Equipment,*

Evaporators

Raised Flue

Drop Flue

Wood Fired

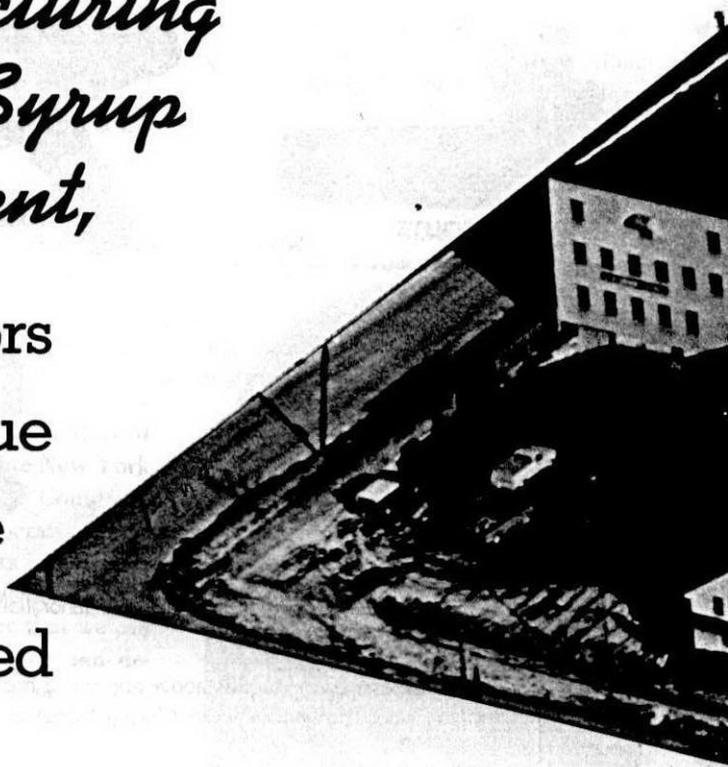
Stainless

Steel &

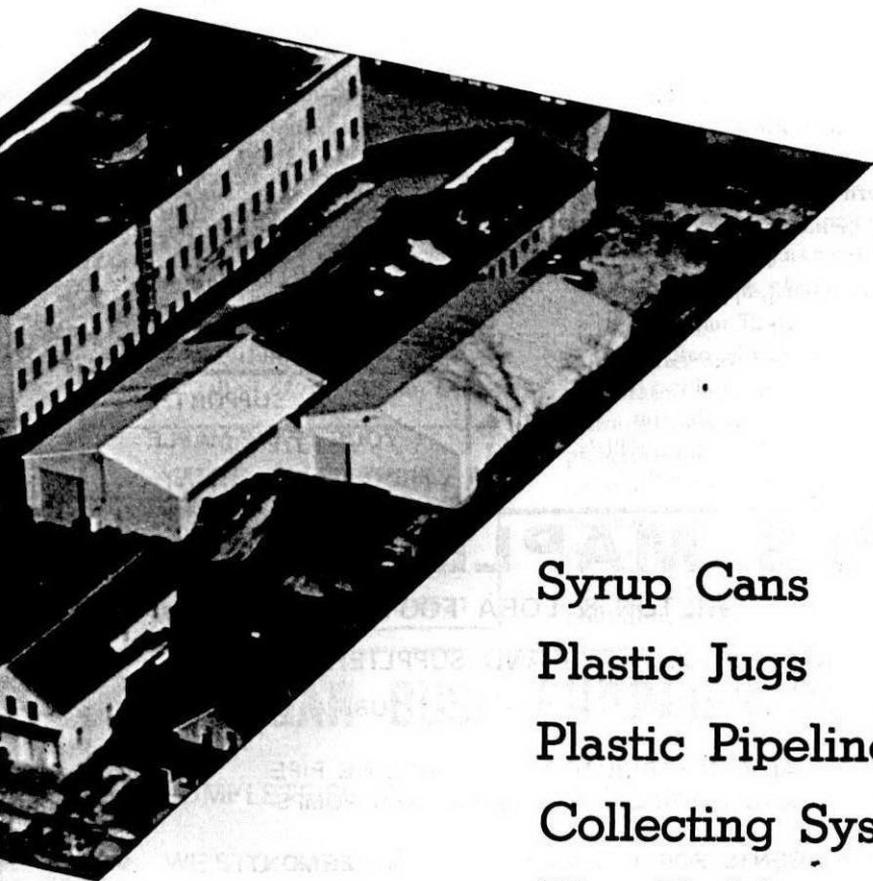
Cokley 'K' Tin

Sap Spouts

Metal Buckets



Rutland, Vt. U.S.A.



Syrup Cans
Plastic Jugs
Plastic Pipelines
Collecting Systems
Hay Tedders

Manufactured by
G. H. GRIMM CO., INC.
Rutland, Vermont 05701

Phone 802/775-5411
802/773-9519

ESTIMATING EVAPORATION EFFICIENCY

The following data can be used to estimate the approximate efficiency of evaporating maple sap:

to raise 1 lb. of water 1 degree F. requires 1 BTU.

to convert 1 lb. of water to steam requires 970 BTU's.

1 gal. of water weighs 8.33 lbs.

1 gal. of fuel oil may yield 140,000 BTU's.

1 standard cord of sound and seasoned (20% moisture content) wood may yield:

hickory, locust, apple

26-27 million BTU's

beech, sugar maple, oak, ash

23-25 million BTU's

paper birch, red maple, elm

19-21-million BTU's

pine, aspen, basswood, tulip

poplar, cottonwood, hemlock, spruce, fir

14-16 million BTU's

A suitable preheater may increase efficiency some 15 percent.

To calculate the approximate energy needed to evaporate a gallon of cold (32 degrees F.) sap:

(a) find BTU'S needed to raise temperature (212 degrees - 32 degrees equals 180 degrees F. or 180 BTU's)

(b) add the BTU's needed to convert to steam (180 plus 970 equals 1150 BTU's)

**JOIN & SUPPORT
YOUR STATE MAPLE
PRODUCER ASSOCIATION**

U.S. MAPLE, INC.

HILTON & LORA FOOTE

MANUFACTURERS AND SUPPLIERS OF

SPOUTS • CONNECTORS • TEES • TUBING and FITTINGS

ALSO DISTRIBUTORS OF MAINLINE PIPE AND FITTINGS, AND SAPSUCKER PUMPS

AGENTS FOR U. S. MAPLE INC. IN VERMONT

David Buttolph	Belvedere	644-5756
Nate Danforth	Tunbridge	889-3447
Donald Foote	Montpelier	223-7286
Green Mt. Maple	8 South St., St. Albans	524-2303
Clifford James	Lyndonville	626-5868

U. S. MAPLE, INC.

CIDER MILL ROAD

RFD 2

MIDDLEBURY, VERMONT 05753

(c) convert from pounds to gallons (8.33 lbs. x 1150 equals nearly 9600 BTU's/gal.)

When fuel is burned, only a portion of the energy is transferred to the sap for use in evaporation. Some of the energy is lost, especially that which goes up the stack. Therefore, evaporation efficiency is the amount of BTU's transferred to the sap (amount used) divided by the amount of BTU's in the fuel. For example, if fuel with 20,000,000 BTU's evaporates 1000 gallons of sap, the efficiency is 48 percent (9600 BTU/gal. x 1000 gal. divided by 20,000,000 BTU equals .48).

Fuel Oil. Many producers have reported evaporation rates of 10 gallons of sap per gallon of oil, without a pre-

heater. Thus their evaporation efficiency was about 69 percent (9600 BTU/gal. x 10 gal. divided by 140,000 BTU equals .69). With a preheater, the efficiency might be increased by 15 percent to 79 percent (.69 x 1.15 equals .79).

The conventional oil-fired evaporator has inherent inefficiencies, principally loss of energy up the stack and loss to hydrogen combustion. These account for some 20-30 percent of the energy in the fuel. Efficiency can also be reduced by a poor ratio of flue to flat pans, poor adjustment of burners or air supply, lack of insulation in arch.

Wood. In addition to having the same efficiency problems of oil-fired evaporators, wood evaporators have additional problems of their own. The principal added inefficiencies are related to moisture content of the wood, manual firing of the evaporator, and size of operation.

For efficiency as well as to reduce pollution, fuels need to be burned hot,

IN STOCK:

LAMB TUBING SUPPLIES

Electric Tappers

GORDON H. GOWEN

Tamarack Farm

Alstead, N. H. 03602 835-6531

SUGAR BUSH SUPPLIES CO.

- COMPLETE SUPPLIER TO THE MAPLE PRODUCER
- WE STOCK BACON JUGS, LAMB TUBING SYSTEM
- AUTUMN LEAF CANS, LABELS & CREAM TUBS
- LEADER, KING, VERMONT EVAPORATORS NEW & USED
- WE BUY USED EQUIPMENT & MAPLE SYRUP

2611 Okemos Road
Mason, Michigan 48854
Tel - (517) 349 - 5185

GIVE US A CALL OR
WRITE FOR CATALOG

with the right amount of oxygen, in a suitable firebox. Many fuel gases do not ignite below 1000 degrees F.; the large amounts of energy in them simply are lost up the stack during a cool fire. Cool and inefficient fires are caused by wet wood, continued opening of the arch doors, too much air (especially cold air), "banking" of the fire when drawing sirup off, etc. These

problems are likely to be compounded in small evaporators. They can be alleviated by using dry wood, preferably in pellet form, with suitable air (oxygen) intake, and striving for high and uniform temperatures.

Because of energy losses associated with wood, evaporation efficiency is often below 50 percent and can drop to half of that. For the heavier hardwoods, one should seek to evaporate at least 1000 gallons of sap per standard cord. For seasoned beech, sugar maple, and ash, this would be an efficiency of about 40 percent (9600 BTU/gal. x 1000 gal. divided by 24,000,000 BTU equals .40). Use of a pre-heater might increase the efficiency to 46 percent (.40 x 1.15 equals .46).

Robert R. Morrow
Cornell University
1981

EVAPORATORS & SUPPLIES

New & Used

LAMB TUBING & FITTINGS

ORDER EARLY & SAVE

ROGER C. SAGE

4449 SAGE ROAD
WARSAW, N. Y. 14569

Tel: 716-786-5684

**MAPLE
PRODUCTS, INC.**
JACKSONVILLE, VERMONT
05342

Tel: 802-368-2345

Dealer for a full line of maple sugaring equipment specializing in "Leader" and "King" evaporators.

Many sizes of gathering and storage tanks kept in stock as well as the small utensils used in making maple syrup.

Buying and selling of bulk maple syrup.

Processor and packer of maple syrup and candies in consumer packages.

American Maple Products

Newport, Vermont 05855

- produces maple syrup,
- buys bulk Maple Syrup from other producers,
- packs Pure Maple Syrup,
- makes Maple Candies, Maple Sugar and Maple Butter,
- wholesales these products to the retailer
- and supplies leading food manufacturers with Bulk Maple Syrup or Maple Sugar.

CAN WE HELP YOU WITH YOUR MAPLE REQUIREMENTS?

A Sapsucker IN YOUR BUSH...

**SUGAR
CAMP**

R2 - Box 337, Rapid City, Michigan 49676 - Ph. 616-331-6328

IS
THE BEST
HIRED HAND
YOU'LL EVER
HAVE



IF YOU MAKE MAPLE SYRUP YOU NEED OUR CATALOG

HERE ARE JUST A FEW OF THE ITEMS AVAILABLE



MODERN SAP COLLECTION
Throw-Away Bag



Trouble With Moldy Syrup?
Use **FERMIBAN**
Inexpensive!



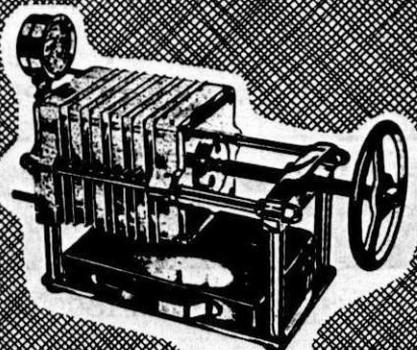
TAPERED BUCKET
BRUSHES
Full Size



REFRACTOMERS
For Extreme Accuracy
In Syrup Testing



Old Fashioned Earthen Jug
All Sizes
2 Oz. Up To One Gallon



PRESSURE FILTERS FOR
SPARKLING CLEAR SYRUP



POLETHYLENE
LINERS
For Leaky
or Rusty
Buckets

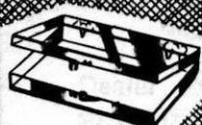


CANDY CUPS

GOLD FOIL
Pressure Sensitive
NAME STICKERS



Light Weight
Big Capacity
GATHERING PANS



Plastic As Well As Paper
CANDY BOXES—Many Sizes



Glass Jugs
Bottles - Decanters
Plastic Bottles
and Jugs
All Styles and Sizes
of Syrup Cans

Non Toxic Paint
For Buckets and Tanks



ALL MAKES
OF EVAPORATORS

SEND FOR A
FREE COPY
OF OUR CATALOG



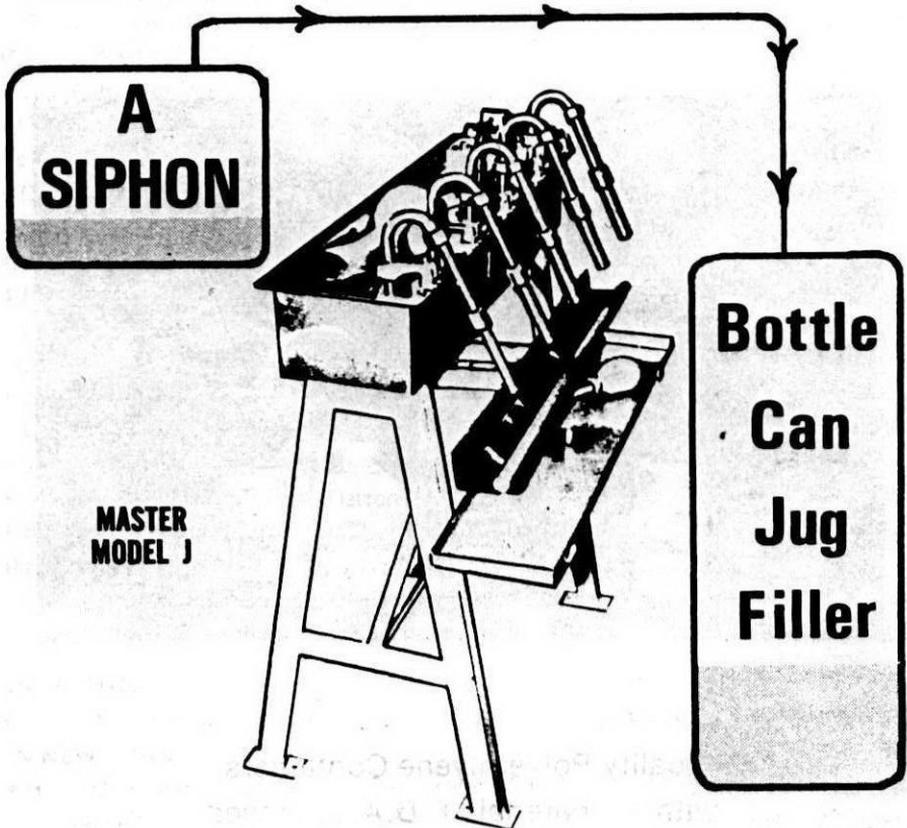
REYNOLDS

SUGAR BUSH INC.

ANIWA, WIS. 54408 Ph: 715-449-2057

**WANT TO CUT DOWN ON
TIME & LABOR ?**

Here is what You Need



**SIMPLE YET AUTOMATIC REQUIRES NO ELECTRICITY
EXCEPT FOR HEATING ELEMENT - NOW AVAILABLE**

Bottle Fills To Any Level Desired And Then Stops. You Can Put On The Cap While Another Bottle is Filling. A New Model With Only Two Filling Tubes Is Very Popular. Fills As Fast As You Can Cap and Label. All Stainless Steel.

OUR CATALOG SHOWS LOTS OF THINGS!

sugarhill

MAPLE CONTAINERS



Quality Polyethylene Containers
with all materials F.D.A. approved

WHITE AND BROWN JUGS

NOW MANUFACTURED

— SOLD BY DEALERS ONLY —

SIS — (413) 665-2111

RUSS — (413) 625-2866

DEALERS AND ASSOCIATIONS CARRYING SUGARHILL JUGS

IN MAINE:

- ◆ Kinney & Hodgkins Maple Supplies, Thorndike, ME 04986 . . . (207) 568-3683
- ◆ Kinney & Hodgkins Maple Supplies, Yarmouth, ME 04096 . . . (207) 846-4570

IN MICHIGAN:

- ◆ Aaron Hall, 127 Church St. Box 245, Pottersville, MI 48876 . . . (517) 645-7305
- ◆ Gerald Swagart, RT 1, Cooks, MI 49817 (906) 644-2655
- ◆ Dodd's Sugar Shack, 1654 Dodd Rd., Niles, MI 49120 . . . Evenings (616) 683-3283
- ◆ Elm River Sugar Bush, Ted & Janet Johnson,
Route 1, Box 104, Toivola, MI 49965 (906)288-3434

IN VERMONT:

- ◆ Leader Evaporator Co. Inc., 25 Stowell St. St. Albans, VT 05478 (802) 524-4966
- ◆ Coombs Maple Products, Inc., Jacksonville, VT 05342 (802) 368-2345

IN NEW HAMPSHIRE:

- ◆ Dave Carta, P.O. Box 210, Rte 302, Glen, NH 03838 (603) 383-9545
- ◆ Harold H. Byam, Hunt Pond Rd., Hancock, NH 03449 (603) 525-4445

IN WISCONSIN:

- ◆ Roth Sugarbush, Route 1, Cadott, WI 54727 (715) 289-3820 / 289-3665

IN MASSACHUSETTS:

Massachusetts Maple Producers Association At:

- ◆ Devon Lane Farm Supplies, Inc.
Daniel Shays Hwy, Belchertown, MA 01007 (413) 323-6607
- ◆ James Ewen, 66 Elmwood Rd., Lunenburg, MA 01462 (617) 582-6655
- ◆ Al Hubbard, 373 North St., Dalton, MA 01226 (413) 684-3418
- ◆ Richard Chandler, Murray Rd., Ashfield, MA 01330 (413) 628-3286

IN PENNSYLVANIA:

- ◆ J. Curtis Dom, P.O. Box 56, Wellersburg, PA 15564 (814) 324-4414
- ◆ Troy Firth, 136 Mechanic St., Spartansburg, PA 16434 (814) 654-7338
(814) 654-7265

IN OHIO:

- ◆ O.C. Stevens & Son, Maple Lane Farm, Mt. Gilead, OH 43338 . . . (419)946-3300

IN NEW YORK:

- ◆ H. W. Cook Farm Service, Inc., DeRuyter, NY 13052 . (315) 852-6161 / 662-7208
- ◆ Archie Miller, R.D. 1, Hamden, NY 13782 (607) 746-2410
- ◆ Ken Hufnagle, Crockett Hill Farm Inc., Box 15, R.D. 1
Martville, NY 13111 (315) 564-6873
- ◆ Justus "Dutch" Asthalter, Neversink, NY, P.O. Parksville, 12768 (914) 292-8569
- ◆ Charles Emerson, R.D. 1, Alfred Station, NY 14803 (607) 276-6481
- ◆ Claude Sisson Sr., Central Bridge, NY 12035 (518) 234-3194
- ◆ Lansing Burdick, 335 East Rd., Stephentown, NY 12168 (518) 733-5591
- ◆ Charles Hoag, R.D. 1 Military Turnpike, West Chazy, NY 12992 (518) 493-5444
- ◆ James Woodrow, Rt 2, Box 59, Herman, NY 13652 (315) 347-2395
- ◆ Warren Allen, Box 254, Castorland, NY 13620 (315) 346-6706

ARCHIE'S SUGARBUSH

Dear Mr. Editor,

My wife she sez, "Truthful Archie, sometimes she calls me honest Archie. Please tell that nice Mr. Editor Man about Granpaws windmill elevator to move wood."

Well, ya see it was like this. Granpaw was an inventor and liked to make syrup the easy way. One of his problems was to get wood to the evaporators from the woodshed. Now this year he had eleven evaporators, side by side, going full blast. He normally ran with twelve, but he was short of help. The building was elebenty feet wide and was seventy feet long. He didn't have electric so he decided on wind power. Now, he put two windmills together, one on top of the other to get above the trees. Using 14 ft. blades and a double reverse gear

box, power was transmitted through a verticle shaft to a semi-movable conveyor which moved steady by jurks and deposited wood to each evaporator as needed. It worked fine as long as the wind blew steady. No one anticipated a March freset of 79 mph on the Richter scale.

Now that elevator moved that wood so fast, instead of dropping it off at the end it flew off as if it had wings, and the evaporator operators started hollering and were unable to keep up and they could'nt shut the thing down and in minutes the evaporator room was full of wood which caught fire and burned down the entire operation.

My poor old granpappy was so heart broken about the loss he moved to Florida where there are no sugar trees growing to remind him of Ohio's Maple Industry.

MAPLE-POWER AND SYSPLECS (CANADA) SYSTEMS OFFER:

NEW - READY FOR '82 PACKING: Barrier coates (outside only) Plastic Containers

MAPLEPOWER "GRADESTA"™ offers shelf life exceeding all present Tin/Plastic available from your Maplepower Distributor

TUBING SYSTEMS: New types available for all year installation at your convenience.

WATERLOO EVAPORATOR SYSTEMS

SIHI PUMPING SYSTEMS/WARREN RUPP DIAPHRAGM

SUGAR HILL CONTAINERS/SYRUP RESALE

COMPLETE PLASTICS FABRICATION: of Tanks/Plexiglas Hoods

DRIP IRRIGATION KITS: For controlled watering of home gardens/small truck farms.

REDUCE WINDOW HEAT LOSS WITH HEATRAP™ & MAGNETRAP™
INDOOR PLEXIGLAS SYSTEM

SEE YOUR MAPLEPOWER DISTRIBUTOR OR WRITE TO:

MIKE BERLINER
MARELCO PLASTICS

1973 Lake Ave.,

Lake Luzerne, N.Y. 12846

Phone: (518) 696-2478

MAPLE & METAL

**A WINNING COMBINATION
FOR OVER 100 YEARS**



- Beautiful 4 Color Maple Scene for Greater Consumer Appeal.
- Much Longer Shelf Life.
- Will Not Become Brittle and Crack at Low Temperatures.
- No Oxygen or Moisture Vapor Transfer.
- Rectangular, For Better Use of Shelf Space.
- No Cancer Causing Compounds Used.
- Don't Settle for Less — Maple Deserves the Best.
- Warehouse Stock in Barre, Vermont—Cleveland, Ohio.

FOR CANS • CARTONS • SHIPPERS • LABELS

FOR THE DEALER
NEAREST YOU
CONTACT US

DEALER INQUIRIES
INVITED

MAPLE SUPPLIES COMPANY

WEST SECOND STREET (P.O. BOX 895)
BARRE, VERMONT 05641
IN VERMONT (802) 479-1827
IN OHIO (216) 247-2967

WATERLOO "The Economizer"

**THE ENERGY AND LABOR SAVING
EVAPORATORS OF THE 80's
WATERLOO EVAPORATORS
HAVE BEEN PRODUCED
AND IMPROVED FOR OVER
60 YEARS.**

**A WATERLOO EVAPORATOR WILL
GIVE YOU A HIGHER OVER-ALL
RETURN ON YOUR INVESTMENT
THAN ANY OTHER MAKE.**

YOU GET:

**SPEED FOR TOP
QUALITY SYRUP**

**DURABILITY TO
STRETCH YOUR DOLLAR**

**ECONOMY
TO CUT OPERATING COSTS**

**SECURITY AND
EASE
OF OPERATION**

**LARGEST BOILING
SURFACE**

**REINFORCED SEAMS +
STRICTLY 22 GAUGE
STEEL USED**

**HIGHEST BTU CONVERSION
RATE IN THE INDUSTRY**

**TWO SAP LEVELS AND
DOUBLE FLOATS FOR
EXTRA SECURITY**

**REVERSIBLE RAISED BOTTOM.
FLUE PANS FOR COMPLETE
"ON ARCH DRAINAGE"**

**MULTIPLE FRONT PANS FOR
EASY AND SAFE HANDLING**



**FOR THE PROFESSIONAL PRODUCER,
THE SUPER PERFORMANCE OIL FIRED "WATERLOO 7"**

WATERLOO's oil fired evaporator systems can automate maple syrup production to a point where sap boiling becomes relaxation. Any sugar maker boiling 4000 taps or more, should carefully consider his overall production costs. It is quite possible that a partial or total oil system from WATERLOO could save him time money and aggravation, even at the present high cost of fuel.

Depending on the easy access to wood and reasonably priced man power, an oil fired evaporation system is still the economic answer for many sugar-makers.

WATERLOO has been producing oil fired systems since many years and the extensive research that our company put into the automated maple syrup production will be at your service if you decide to analyze the cost-benefit factors of a fully or semi-automated installation.



**WATERLOO ALSO OFFERS THE FAMOUS ELECTROHOME R/O SYSTEMS
FOR OUR FREE 16 PAGES CATALOGUE AND NAME OF YOUR NEAREST DEALER**

**WRITE TO: WATERLOO EVAPORATORS INC. 6064 FOSTER ST. WATERLOO,
QUEBEC, JOE 2N0 CANADA TEL.: (514) 539-3663**

Classified

LES JONES' "Do It Yourself" Instructions available. For convenience buy your burner locally; use "Do It Yourself" DETAILED instructions for easy and CORRECT installation. MRS. LES JONES, Holcombe, WI 54745.

MAPLE INDUSTRY CONSULTANT - Layout and installation of vacuum tubing systems a specialty. Also, feasibility studies and sugarhouse design. References. Available for work anywhere in the maple region. DAVID R. MARVIN Johnson, VT. 05656. 802-635-7483.

FOR SALE: Two used evaporators: 5x16 - 3 pan Vermont w/gas burners, preheater & hood & 1 extra pan. 4x14 3-pan Vermont, gas fired w/hood. BIRCHWOOD FARMS 616-861-4477.

FOR SALE: 3x10 Leader pans, 3x12 Lightning complete, 3x12 Vermont complete, 2 - 3x8 evaporators, 4x13 Lightning w/4x10 preheater hood, 5x10 Lightning flue pan, 5x12 Grimm pans; 2x5 & 16x32 gas finisher, 1700 gallon glass lined tank, storage tanks, Mitchell vacuum system. 600 plain Bacon jugs, special price. SMADA FARMS INC., Star Rt., Greene, N.Y. 607-656-4058

USED EQUIPMENT FOR SALE: 1 - 30 bbl, 2 - 35 bbl, 1 - 40 bbl round bottom storage tanks, 1 preheater w/aluminum cover & stack for 5x10 pan, 200 & 300 gal. stock tanks w/drop pipes and cover, 15 gph oil burners, 10,000 gal. oil tank and other misc. equipment. SIPPLE'S, Bainbridge, N.Y. 607-967-7208.

FOR SALE: 5'x10' Oil Fired Grimm arch w/stack. 5'x10' English Tin Lightning flue pan. 5'x10' Steam Hood w/Preheater and Stack. 5'x10' Steam Hood w/Stack. 1 - Nairoil Type R 10-15 GPH Oil Burner. 1 - Bucket Washer. 1 - 600 gal. Flat Bottom Tank. W. C. Arnold & Sons - Burlington Flats, N.Y. 607/965-8944.

NATURAL AND L. P. GAS BURNERS

Proven Since 1952

ELMER WINTER

11171 Sisson-Highway, Route 75
North Collins, N. Y. 14111

EMERSON'S DAIRY

"n"

MAPLE FARM

We want to save you
money on all your
maple needs!

* * * * *

Dist./Dealer For:

Leader, Vermont,
King Evaporators
Canadian Lightning Evaporator
Lamb Tubing
Bacon Jugs
Sugarhill Jugs

Syrup cans (new for '81)
Storage & Gathering Tanks
Sugar Boxes & Cream Tubs

* * * * *

Write or call for information

* * * * *

MAPLE IS OUR HOBBY!

DAIRY IS OUR BUSINESS!

R. D. 1
Alfred Station, New York 14803
(607) 276-6481



SELLS YOUR PURE MAPLE SYRUP

- **THE BACON JUG GUARANTEES** quality at a fair price. We refuse to use low price plastic resins that save you pennies but may cost you many dollars in damaged syrup.
- **RESEARCH HAS PROVEN** that our jugs are made at the most favorable weight to protect the color of your pure Maple Syrup. Heavier jugs use more plastic and take more time to mold which results in a higher cost, but no added protection of syrup color.
- **OUR JUGS ARE THE RIGHT SIZE** for 180° F. hot pack filling to assure "full measure" to the customer but no "give away" of syrup due to oversized containers.
- **U.P.S. AND P.P. ACCEPT BACON JUGS** for shipping in our inexpensive single boxes. Call U.P.S. for information about their "Ready Customer" service.
- **DID YOU KNOW** that tin and iron migrates into pure Maple Syrup packed in tin? Write us for a free copy of research done on this subject.

At your service ...

- **ALWAYS READY TO ANSWER QUESTIONS** and help maple producers in any way possible.
- **ATTENDS MAPLE MEETINGS**, local, state/provincial and national, in an effort to understand maple problems throughout the maple belt and learn ways to solve them.
- **CURRENT PRESIDENT OF THE INTERNATIONAL MAPLE SYRUP INSTITUTE** helping to solve maple problems at an international level.
- **A DUES PAYING MEMBER** of most maple producer organizations.



CHARLES BACON

See your
dealer
or write

BACON'S SUGAR HOUSE

JAFFREY CENTER, NEW HAMPSHIRE 03454

(603) 532-8836

DEALERS & ASSOCIATIONS CARRYING BACON'S JUGS

R. N. Johnson, Walpole, NH 03608	(603) 756-3321
N. H. Maple Producers Assn., Warehouse, Rt 106, Loudon, NH 03301	(603) 783-9961
Richard Moore, RFD No. 8, Concord, NH 03301	(603) 267-8217
Devon Lane Farm Supply Inc., Daniel Shays Hwy., Belchertown, MA. 01007	(413) 323-6607
Donald Amero, W. Woodstock, VT. 05091	(802) 457-3722
Clark Brothers, Wells, VT. 05774	(802) 325-3203
Coombs' Maple Products, Inc., Jacksonville, VT. 05342	(802) 368-2345
The Dakin Farm, Ferrisburg, VT. 05456	(802) 877-2936
Leader Evaporator Co., St. Albans, VT. 05478	(802) 524-4966
David R. Marvin, Johnson, VT. 05656	(802) 635-7483
Vermont Sugar House, Exit 3, 1-89, So. Royalton, VT. 05068	(802) 763-8809
W. Barry Branon, 54 Cogan Ave., Plattsburgh, NY 12901	(518) 563-1063
Lansing Burdick, 335 East Rd., Stephentown, NY 12168	(518) 733-5591
Campbell's Maple, Smyrna, NY 13464	(607) 627-6653
Charles R. Emerson, RD 1, Alfred Station, NY 14803	(607) 276-6481
David Nascimbeni, Glen Durham Sugarhouse, Cairo, NY 12413	(518) 622-9878
Harold Tyler, Maple Farms, Tyler Rd., Westford, N. Y. 13488	(607) 638-9474
Ralph VanBrocklin, RFD No. 2., Canton, NY 13617	(315) 386-3036
John Wiggers & Sons, North Clymer, NY 14759	(716) 355-2511
Neil C. Wright, 28 Liberty St., Camden, NY 13316	(315) 245-1519 (315) 245-1434
Northeastern Pennsylvania Maple Producers Association	(717) 689-2353
Court House, Honesdale, PA 18431	(717) 253-5970
Potter-Tioga Maple Prod., Assn., Coudersport, PA 16915	(814) 274-8540
Robert McConnell, Coudersport, PA 16915	(814) 274-9143
H. W. Russell & Sons Maple Farms, Rome, PA 18837	(717) 247-7361
Somerset County Maple Producers Association	
% Dale Jeffrey, Box 15, Wagners Rd., W. Salisbury, Pa. 15565	(814) 662-2904
Sugar Bush Supplies, 2611 Okemos Rd., Mason, MI 48854	(517) 349-5185
Kinney & Hodgkins Maple Supplies, Thorndike, ME 04986	(207) 568-3683
Kinney & Hodgkins Maple Supplies, Yarmouth, ME 04096	(207) 846-4570
Maine Maple Products, Inc., Titcomb Hill, Farmington, ME 04938	(207) 778-3803
Wyman W. Manes & Son, East Orwell, Ohio 44034	(216) 583-2388
Richards Maple Products, 545 Water St., Chardon, OH 44024	(216) 286-4160
O. C. Stevens & Son, Maple Lane Farm, Mt. Gilead, OH 43338	(419) 946-3300
Reynold's Sugar Bush, Inc., Aniwa, WI 54408	(715) 449-2057
Ivan Puffenbarger, Rt. 637, Blue Grass, VA 24413	(703) 474-2771
Bacon Jugs Canada, Box 152, St. Andrews East, Que. JOV 1X0	(514) 562-2237

ATTENTION

Maple Producer

LEADER EVAPORATOR will continue to supply quality Maple equipment at a reasonable price to the Maple producer with LEADER – KING & VERMONT evaporators.

Quality and service are very important at all times to the Maple Producer and Leader Evaporator takes great pride in the quality of its manufacture.

The Sugar Hill Maple Syrup Jug is available along with the Bacon and Kress Jugs.

LEADER EVAPORATOR also offers all five size 00 Maple syrup cans of proper capacity for hot pack Maple Syrup.

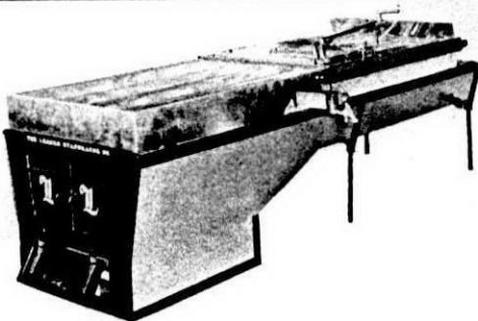
We look forward to serving your Maple needs in a prompt orderly manner.



- LAMB & MAPLEFLO PIPELINE SYSTEMS
- OIL FIRED EVAPORATORS
- GAS FIRED EVAPORATORS
- GAS & ELECTRIC TREE TAPPERS

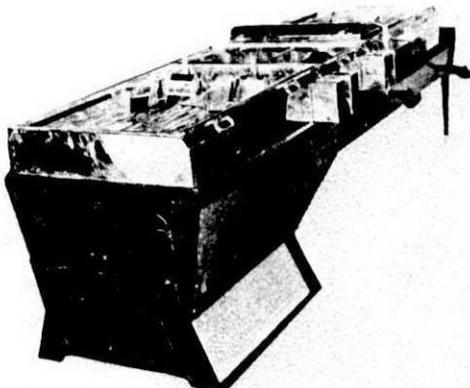
OVER
90
YEARS

TREE TAPPERS –GAS/ELECTRIC
BACON/KRESS JUGS
ALUMINUM STEAM HOODS
PARALLEL FLOW PREHEATERS
LEADER SPECIAL EVAPORATORS
MONITOR TANKS
WARNER SPOUTS



KING EVAPORATORS
KING TANKS
SOULE SPOUTS

VERMONT EVAPORATORS
VERMONT SPOUTS



Quality and Service since 1888

owned and operated by people interested in MAPLE to better serve
the MAPLE Producer – Contact us for all your MAPLE needs.

Leader Evaporator Co. Inc.

25 Stowell St., St. Albans, Vermont 05478

802-524-4966

802-524-3931

A decorative border with a wood-grain pattern surrounds the text. It consists of a top horizontal bar, two vertical bars on the sides, and a bottom horizontal bar, all with a detailed wood grain texture.

LAMB *Naturalflow*

**PRE — SEASON
MAPLE — TUBING
SALE**

5/16 PVC TUBING APPROX. 20. LB. TO THE 500'
ROLL FIVE & ONE HALF CENTS PER FT. .070 TO
.075 OF AN INCH WALL THICKNESS, #78S SPOUTS
.20 EACH #34 - T's & #46 CONN.

.10 EACH

1/2' - 3/4" & 1" MAINLINE AT LAST YEARS PRICES

**NEW FITTINGS COMING
FOR YOUR CONVENIENCE**

FOR NEW DESCRIPTIVE PRICE LIST

WRITE OR BETTER YET

SEE YOUR

NATURALFLOW DEALER

SALE GOOD ONLY IN U. S. A.

NATURALFLOW & MAPLEFLOW

Robert M. Lamb

P.O. Box 368 Route 49
Bernhards Bay, N.Y. 13028

Phone (315) 675-3652
Home (315) 675-3559