



MAPLE SYRUP

DIGEST

WISHING YOU A VERY
MERRY CHRISTMAS



May your blessings increase and may your home
be filled with happiness.

Vol. 23, No. 4

December 1983

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

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

G. H. GRIMM COMPANY, INC.

Maple Syrup Equipment — Hay Tedders

P. O. Box 130

Rutland, Vermont 05701

NEW



MAPLE SYRUP COLOR KIT — — —

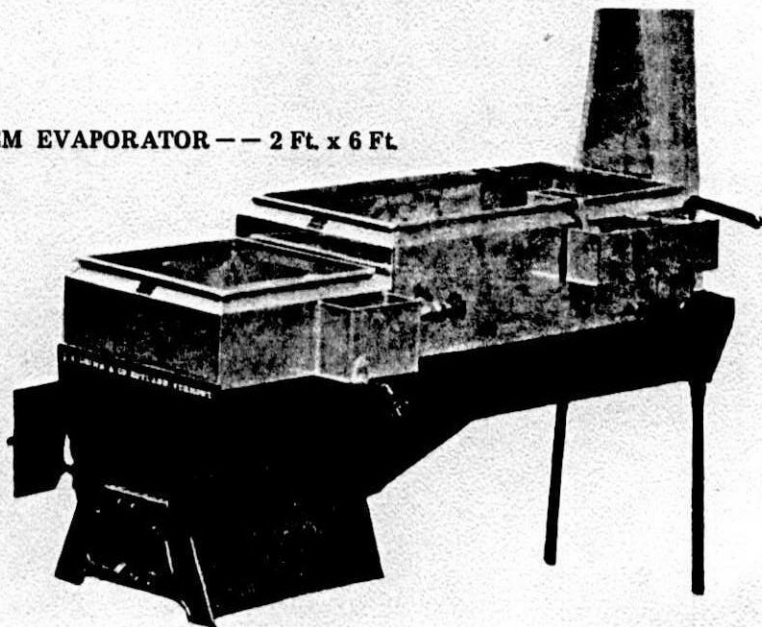
for grading consisting of a stainless steel holder 7" long with 5 slots, for 1 oz. sq. bottles; 3 slots have amber shaded glass pieces, imported from Germany and ground for us by a professional company who have matched the three pieces to coincide with the Master sets at the U. S. Bureau of Standards for Maple Syrup in Washington, D. C., as evidenced by light meter curves supplied to us, being correct to market.

The three colors are as follows:

1. U. S. Grade A "Light Amber" or Vermont Fancy or AA in Canada
2. U. S. Grade A "Medium Amber" or Grade A
3. U. S. Grade A "Dark Amber" or Grade B

Our kit has square 1 oz. bottles. Three containing glycerin must always stay in the kit in back of each glass. The other two to be used filled with a sample of syrup to be tested.

GEM EVAPORATOR — — 2 Ft. x 6 Ft.



GRIMM ANNOUNCES

"NEW LOW PRICES ON EVAPORATORS"

Specializing in stainless steel pans.
Highest quality chromium-nickel content.
Corrosion resistant — All flues 7½" deep

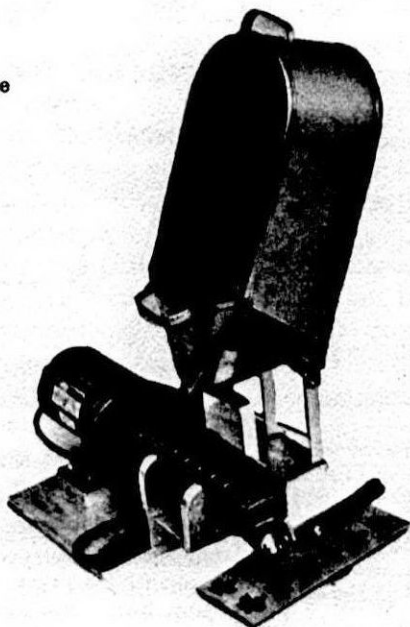
RAISED FLUE "LIGHTNING" & DROP FLUE "GRIMM"

Be sure to get our "New LOW PRICELIST"
before ordering.

Cookley Tin Pans also available if desired.

Everything for the Sugarmaker:

Spouts
Buckets
Covers
Tanks
Hydrometers
Thermometers
Pumps
Grates
Stack



Filters
Sugar Molds
Drills
Plastic Jugs
Plastic Tubing
Evaporators
(oil or wood)
Pails
Cans

Cartons
Candy-making
machines
Gas Evaporators
Steam Evaporators
Steam Hoods
Color Sets
Grade Stamps

SIPPLE SUGAR MAKER

A practical machine for making the finest grain of Maple Candy. It brings out the delicate maple flavor. A proven outfit with stainless steel Pig or Boiling Pan, stainless steel Worm and stainless steel Trough. With gear reduction motor. Makes 15 lbs. per batch.

THE MAPLE SYRUP DIGEST

Published & Edited by: Lloyd H. Sipple
R D #2, Box 126
Bainbridge, N. Y.
Phone: 607-967-7208

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:
La Tourette Rapid Reproductions Inc.
13 No. Canal Street, Box 598
Oxford, New York 13830

NORTH AMERICAN MAPLE SYRUP COUNCIL DIRECTORY OF OFFICERS

Gordon Gowen Chairman
Alstead, NH 03602 603-835-6531

John Kroll Vice-Chairman
Long Prairie, MN 56347 612-732-2575

Michael Girard . . . Secretary-Treasurer
Simsbury, CT 06070 203-658-5083

DIRECTORS

Sandra Webber . . . 207-778-4234
Farmington, ME 04938

Russell Davenport 413-625-2866
Shelburne Falls, MA 01370

Terry Healey . . . 616-582-7683
Charlevoix, MI 49720

J.L. Maxwell Spicer . . . 902-392-2823
Spencers Island, N.S. BOM 1S0

Arthur Merle, 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

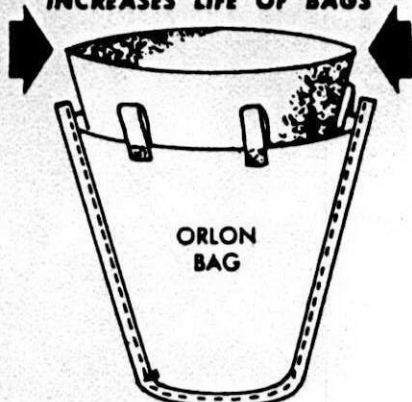


DEADLINE FOR FEB ISSUE - JAN. 2

DIGEST ADVERTISING RATES
2 Page Spread . . . \$355.00
Full Page 190.00
1/2 Page Vert. or Hor. 105.00
Column Inch 15.00
Classified55 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

I've seen a lot of changes in syrup making since I was big enough to notice things. We've come from wooden and tin buckets to tubing for collecting sap. Tubing also allowed gathering tanks to be replaced with pumps in some cases and trucks replaced the horses or tractors and sleds in others.

Automatic draw-offs and hydrometers have replaced the "precision scoop" to determine density and grading sets have made "guesstomating" obsolete. We have plastic syrup containers and rubber sugar molds instead of wood or tin. Ultra violet lights are making underground storage old fashioned and tight covers and pre-heaters take care of the steam better than a hole in the roof.

In the last 50 years that I can remember the best, some say it's more like 75, about the only change there's been in evaporators is from English tin to stainless steel. Must be those who designed them in the first place did a pretty good job. At least we haven't had to buy a new model every year or two just to keep in style, like automobiles.

But lately the cost of energy has forced a change to Reverse Osmosis and Vapor Compression Distillate machines. Also, the "Economizer" may be just the answer for both the

large and small operations. It may very well be that someone will soon come up with an entirely different gadget to replace all of them. There must be something to help the little guy who doesn't want to invest a lot of money to make a couple hundred gallons of syrup.

I guess you might call this reminiscing. Mary Lou says I'm day dreaming and she's probably right. With the Christmas season approaching it's a good time for it.

As I think back, I started out as a "back yard" producer, built it up to a sizeable operation and have now cut down to a very small size again. I guess you could rightfully say I'm over the hump.

But being over the hump doesn't mean I'm ready for the rocking chair on the front porch yet, although I do end up there occasionally on summer evenings. It means I'll re-arrange my schedule and devote more time to the things I enjoy most: growing Christmas trees, working in my woods, taking on a few part time jobs and, last but not least, have more time to do a better job on the Digest.

So now I'll sign off and wish you all a very Merry Christmas and a prosperous New Year.

ATTRACTIVE APPROVED LABELS FOR

MAPLE SYRUP, CREAM & SUGAR

No more Hand-stamping
Name, Address, Grade & Color

On 1 Self Stick Label or Tape

For Metal, Plastic or Glass

CHOICE OF COLORS — ALL SIZES

For Prices and Samples write to

WILLIAM L. CHALMER

Dept. D

150 Traverse Blvd. Buffalo, N.Y. 14223

IN STOCK:

LAMB TUBING SUPPLIES

Electric Tappers

GORDON H. GOWEN

Tamarack Farm

Alstead, N. H. 03602 835-6531

GREETINGS FROM THE CHAIRMAN



We have just returned from Traverse City, Michigan, and an excellent 24th Annual Meeting of the N.A.M.S.C. The meeting place was good, the foliage still colorful and the company great. The Michigan folks sure did a great job for us.

As we begin our 25th year as an organization, it has been brought to my attention in many ways, that a lot of maple folks don't know what the Council is or does.

For starters, I'd like to tell you the "purpose of the Council" as stated in the by-laws--

- (a) To promote the best interests of "Maple syrup producers";
- (b) To establish standards and to integrate industry standards of maple syrup and its derived products;
- (c) To promote research in the chemistry and technology of maple sap and syrup and their derived products; to improve control of sap quality; to improve sap production methods; to lower sap production costs; to improve syrup processing methods, equipment and labor requirements; to improve packaging methods, and packaging to expand the markets though the development of new products;

- (d) To promote research in Maple (bushes) orchard management; to improve tree stands and yields of sap per taphole and per acre; to improve tree species and methods for their propagation; to develop methods for the control of insects and diseases damaging to maple trees;
- (e) To promote research to expand the markets for Maple products;
- (f) To promote unified effort among the various groups represented on the Council;
- (g) To cooperate at all times with other organizations promoting Maple syrup industry.

I could add one more purpose that has more or less happened since the demise of the Tri-ennial Maple conference in Philadelphia. That is to act as a sounding board, with a great many maple producers as a live audience for scientific and technical papers. This is often the first hearing of new research and new or different ideas.

In future issues, I hope to tell you just a few of the things the Council has accomplished.

Well, I've got to start thinking about the next season. How time flies!

Gordon Gowen

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

SMALL BROTHERS

Lightning Evaporators

The new wood saver

REVERSE OSMOSIS

Other equipment & supplies

U.S. MAPLE TUBING & SUPPLIES**SAPSUCKER VACUUM PUMPS****BRODIES SUGAR BUSH**

Otsego County Route 34

1 mile off N. Y. 165 in South Valley
Westford, N. Y. 13488 607-264-3225**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****N. Y. MAPLE SCHOOLS**

The following is a tentative schedule of maple schools to be held January, 1984. In all cases, contact agent for exact time and location where not specified. More information will be published by your County Extension Service.

DATE	HOST COUNTY	HOST AGENT	LOCATION
1/12	Allegany	Lee Brumback 716/268-7644	
1/13	Chautauqua	Andy Dufresne 716/664-9502	Ross Grange Hall Falkoner, NY
1/14	Wyoming	Eric Schimke 716/786-2251	
1/17	Cortland	Debra Perosio 607/753-5077	Cortlandville Grange Hall Junction Rts. 281 & 222 Cortland, NY
1/18	Chenango	Gerald Le Clar 607/334-5841	Sherburne Municipal Bldg. Rt. 80, Sherburne, NY
1/19	Delaware	Tom Donnelly 607/865-6531	
1/20	Otsego	Bill Gengenbach 607/547-2536	Methodist Church Cooperstown, NY
1/24	Lewis	Dave Hill 315/376-6551	Deere Hill Restaurant Rt. 12, Lowville, NY
1/25	St. Lawrence	Mike Sullivan 315/379-2311	Canton Free Library Park St., Canton, NY
1/26	Clinton	Bill Pauling 518/561-7450	Miner Institute West of Chazy, NY (Rt. 191 Exit 41W off Northway)
1/27	Washington	John Thurgood 518/747-2861	Mohican Grange Hall Ridge Rd. & Sunnyside Rd. Oneida Corners, NY

MICHIGAN MAPLE SYRUP QUEEN

Daughter of Dale and Eleanora Strange, and a 1983 graduate of Kingsley High School, 18 year old Dawn Marie Strange was chosen to be Michigan's first Maple Syrup Queen.

In 1972, Dawn was chosen the Kingsley Elementary princess for the National Cherry Festival.

In 1982, she was chosen to represent her hometown as Miss Kingsley. Following her reign as Miss Kingsley, Dawn competed in the local Miss Grand Traverse Area Scholarship Pageant, where she was selected second runner-up.



In 1982, she was chosen to represent the southern Grand Traverse district at the Farm Bureau Government Citizenship Seminar held at Albion College in Calhoun county.

This fall Dawn plans to attend Northwestern Michigan college in Traverse City, to further her education as a Medical Asst.

Dawn will be present at the Grand Traverse Resort in October at the National Meeting of Maple Syrup Producers hosted by the Michigan Maple Syrup Producers Association.


Dawn is also a fourth generation syrup maker. She helps each spring washing buckets, etc., to start the syrup season. She has been involved in all areas of making syrup.

**NEW
&
USED**

Sugaring Supplies

SMALL BROS. & GRIMM EVAPORATORS
AND ACCESSORIES • US MAPLE
TUBING • SUGARHILL NH, VT & ALL
STATE CONTAINERS • RO EQUIPMENT •
BULK, WHOLESALE & RETAIL SYRUP SALES

SEND FOR
CATALOG
(\$1.00 outside
New
England)



Bascom's Sugar House

R.D. 1, Box 138
Alstead, NH 03602
(603) 835-2230 or
835-6361

BOB LAMB'S CORNER

In a small business that only takes place for a short time each year, our learning periods are limited. There has always been three things in the collection of maple sap that have been foremost in our minds.

1. Each morning, every extra drop that is collected is of the most importance.

2. To run all day, if possible, when not a single drop falls in the buckets. These marginal days occur often enough to warrant attention. Even an extra hour here and there adds up. The good days take of themselves.

3. To run as late in the day as possible.

These three problems add up to one item: How much sap can be collected with the smallest investment and give the greatest return over the longest period. Remember, the more we invest, the more we have to get back.

The first step is to draw heat and melt the ice in the tubing. Color draws Infra Red rays to warm it up. Yet, we have to have a translucent tubing to allow Ultra Violet rays to penetrate the walls and retard bacterial growth.

Color is a relative thing. If you think the tubing is too dark, don't worry. Each year it will get lighter. Fading can not be stopped with any coloring available at this time that will pass the F.D.A.

Today's 5/16 tubing should last 20 to 25 years if taken care of properly. Less, if not, but that's your business. To still have some color left is quite a problem. To counteract it, we put many microscopic, star shaped

particles in every foot of tubing we make. These keep Infra Red rays bouncing back and forth in the walls more times than just hitting once. Yet, they do not restrict Ultra Violet penetration to help retard bacterial growth.

This is no big deal, but important enough to go to the extra expense. If we want to do the best we can, we have to.

In any business there is always the burr under the saddle. With buckets you can wash and keep rotating. With tubing you can sometimes get away from sanitizing during the season. But if there are warm spells in between runs, you should run a weak Clorox solution through your lines. (1 part Clorox to about 40 parts water) This will usually put you back in the light syrup business. Some insert it in the high point of each line and let some sap run on the ground. Others use a hand carried air tank to blow it out. We need more research on this procedure.

As you know, Clorox is valuable and will usually boil off. If your solution is too strong, you will have off flavored syrup. Only so much can be boiled off.

At the present time we make 3 different 5/16 tubings:

- #32 U Competitive weight -.05/ft.
- #31 U Oversize tubing that can be pulled off fittings more easily -.055/ft.
- #33 U Our best heavy weight tubing -.055/ft.

We can also make a light colored, competitive weight tubing for even less money.

ROBERT M. LAMB
Box 368, Bernhards Bay, NY 13028
(315) 675-3652 or 3559

This is a paid advertisement

WISCONSIN FALL MAPLE TOUR

The "fall maple tour" took place this year in Oneida and Price Counties, on Saturday, Oct. 1. There were about 100 producers along with this years Maple Queen that were able to enjoy the beautiful day, tours and banquet.

It started out with our registration from 8:30 A.M. - 9:00 A.M. at Fifield. We then boarded 2 buses and a few cars and set out for Herb Brook's Sugarbush. It is located on the west side of Squirrel Lake at Minocqua. Herb said it was only 4½ miles south of the main highway, but I'm sure we would all agree, it seemed like 15 miles or more because of all the hills and curves we were on. We also have to agree that the area was beautiful. The trees were almost at their peak in color. When we got there, we were treated to donuts and coffee while Herb told us a little about his operation. He has about 1,200 taps and processes his syrup on an oilfired fired 3 x 10 evaporator. What is unique at Herb's is that he makes just about all his equipment from his sap bag handles, finishing pan, filter press, bottler, etc.

After this, we headed for the cranberry bogs. We went to Alder Lake Cranberry Company near Manitowish Waters. They were harvesting this years crop and told us that they are a three generation operation and harvest their crop with equipment that is mostly of their own design.

From there we went to the Blue Bayou Inn for a delicious lunch and discussed our mornings adventures.

Back on the buses and off to the Howard Vander Veen Farm and Sugarbush. Howard's farm was that of a herd of 50 buffalo within the boundaries of the Chequamegon National Forest. His sugarbush was a short distance from here and is under development. He has 120 acres and makes maple syrup on a 3 x 12 wood-fired evaporator. Howard is in the process of moving this from his present location to a different building and to use plastic tubing for sap collection.

Our next stop was at the John Slack Sugarbush near Park Falls. They have been in the maple syrup business since 1964 and purchase all their sap. They process their syrup on a 6 x 16 wood fired evaporator and is then transferred to a 4 x 12 oil-fired evaporator for finishing.

At 5:00 P.M. we were back at Fifield in the Northwoods Cafe for our banquet and program. During our program, Ted Peterson, Wisconsin State Forester, introduced our 1983-84 Wisconsin Maple Queen, Jewelie Grape, who is a student at the University of Minnesota in Minneapolis. Ted then thanked Herb Brooks for arranging our fall tour. At this time, our President Alton Hoff presented the "Wisconsin Syrup Maker of the Year" award. It went to Mr. & Mrs. John Slack. Congratulations!

A few other speakers were heard, pictures were taken and then we all headed our separate ways. Tired, hopefully a little "Maple" smarter and plans starting for that first drop in the bucket in the spring.

Gretchen Grape

B/P BERLINER PLASTICS B/P

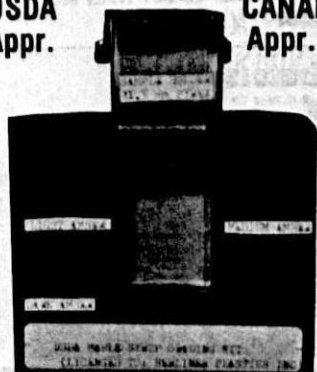
THE INNOVATOR IN MAPLE SUPPLIES

Berliner Plastics, Mike Berliner Pres., has a full line of MAPLE PRODUCTS including the ORIGINAL FORMULA GREEN WEATHER RESISTANT GRADE TUBING/ORANGE LO-HEAT MAINLINE. Our molds are producing super-tuff spouts/tees/6 ways etc. PLUS our line of MAPLE JUGS with/without GRADESTAY coating, and the ONLY LICENSED USDA PERMANENT GLASS GRADING KIT. See your B/P systems authorized distributor with his full line of maple equipment supplies. Distribution for ground floor opportunities. Contact us now:

SUGARHILL JUGS TUBING SYSTEM DISTRIBUTORS SYRUP RESALE

CONNECTICUT:	
Mike Girard, 11 Village Road, Simsbury, CT 06070.....	203-658-5083
MAINE:	
Bill Webber, Farmington, ME 04938	207-778-4234
MASSACHUSETTS:	
Al Hubbard, 373 North St., Dalton Mass.....	413-684-3418, 634-8821
Mt. Esther Maple Products; Whately, Mass 01093	413-665-4848, 4442
MICHIGAN:	
Terry DeLoughary, Bark River, MI 49807.....	906-466-2305
Lucille Leash, 2985 Everette, Harrisville, MI 48740	
Springbrook Irrigation, 11291 Lakewood Blvd., Holland, Mich. 49423	616-396-1956
NEW HAMPSHIRE:	
Marty Collins, Putney, VT 05346	802-387-5757
NEW YORK:	
Erie County Brian Fahey, 6161 Genesee Rd, Lancaster, NY 14086	716-759-2962
St. Lawrence Jim Woodrow, Route 2, Hermon, NY 13652	315-347-2395
Otsego/Del. Matt Kent, R.D. #1, Franklin, NY 13775	807-829-8262
Cha. & Cat. Gary Peterson, RD 6, Box 192, Jamestown, NY 14701	716-665-3378
Lewis/Jeff. Warren Allen, RD, Castorland, NY 13620	315-346-6706
Gen. & Wyo. Dave Graziplene, North Java, NY 14113	716-457-9640
Sul. & Ora. Vern Meyer, Long Eddy, NY 12760	914-887-4108
Col. & Gre. Scotty Burdick, 335 East Rd. Stephenstown, NY 12168	518-733-5591
Clinton Barry Branon, 54 Cogan Ave., Plattsburgh, NY 12901	518-563-1063
OHIO:	
John Martin, State Rte 96, Bucyrus, Ohio 44820	419-562-4861
ALL OTHER COUNTIES OPEN FOR NEW DISTRIBUTORS:	
PENNSYLVANIA:	
John Deets, RD 5, Titusville, PA 16354	814-676-1097
J. Curtis Dom, Box 56, Wellersburg, PA 15564	814-324-4414
WISCONSIN:	
John Roth, Roth's Sugar Bush, Route 1, Cadott, WI 54727	715-289-3665
VERMONT:	
Ora. & Wash. Bill Gehr, RD 2, Barre VT 05641	802-479-2891
Caledonia Buckey Shelton, Sugarwoods Farm RFD 2, Glover, VT 05839	802-525-3718
Addison: Gil Goodyear, Bristol, Vt.....	802-453-4825
Chittendon Chas. Elliot, S. Burlington	802-862-2497
Essex/Ori. Bill Moore, Box 43, Morgan, Vt 05853	802-895-2764
Fra. & Lam. Dave Mayotte, RD 2, Fairfield, Vt 05448	802-849-6810
Rutland R.C.M.P., Ed Merrow, RD, Danby, VT 05739	802-293-5378
Windham: VT. Disc. Supplies, Putney	802-463-9566
Windsor Chip Kendall, S. Woodstock, VT 05071	802-457-1473
Dave Harlow, RFD, Ludlow, VT 05149	802-228-7151
CANADA:	
Don Atkinson, RR 1, Barrie, Ontario, L4M 4YB	705-728-5848
Ken McDonald, 38 Hillside Ave., Truro, N.S.	902-895-1770
Jacques Morin, Valcourt, Quebec	514-761-6458

**USDA
Appr.**



**CANADA
Appr. &**

What every sugar maker has wanted.

USDA Approved Kit AVAILABLE NOW: \$65.00

Permanent (low cost) glass panel grading kit (certified to USDA/Canada Specs) obsoletes the nonapproved "Glycerine" type

NEW: TRUCK CAPS (f-glas)
FORESTRY SUPPLIES
PLASTIC SHEET/BAGS
LAMINATION OF FORMS/DOCUMENTS
ENGRAVED NAME TAGS/SIGNS

Mike Berliner, Pres. / Berliner Plastics
 1973 Lake Ave., Lake Luzerne, N.Y. 12846
 518-696-2478

PENNSYLVANIA MAPLE SYRUP PRINCESS CHOSEN

Deanna Stahlman, the 1983 Northwestern Pennsylvania Maple Queen was chosen to be the 1983-84 Pennsylvania Maple Syrup Princess at the recently held State Maple Tour. Deanna is the daughter of Mr. & Mrs. Gary Stahlman of Reno, Pa. As the State Maple Syrup representative, she will participate in all state functions starting with the Farm Show which will be held January 8-13, 1984.

The second runner-up in the contest was Christine Hyde of Shinglehouse, Pa., representing the Potter-Tioga Maple Producers Association. The third runner-up was Lois French of Athens, Pa., representing the Endless Mountains Maple Producers Association including Bedford and Windham Summit.

Northwestern Pennsylvania Maple Producers Association was host for this year's State Maple Tour and Princess contest which was headquartered at the Corrian Hotel, Corry, Pa. The program involved tours on Friday, September 23, of Northrup's Egg Farm and Sugar House in Corry; Troy Firth's Central Evaporator in Spartansburg, the largest maple syrup operation in Pennsylvania; Troyer's Potato Chip Factory in Waterford and the Corry Fish Hatchery. In the evening the State Banquet was held where the Princess

contest took place. Charles Dengler, Saegertown, president of the Northwest Maple Producers Association conducted the meeting. Joseph Beard, Crawford County Extension Agent, gave a slide presentation on the 1983 Dow Study Tour he was awarded by the National Association of County Agricultural Agents. Beard was one of 30 agents from all over the United States that spent 10 days touring the northeastern area including east central New York, up the Champlain Valley, across New Hampshire, into Maine then back through Massachusetts and Connecticut. The purpose of this tour was to study agriculture production, research, agri-business, marketing and merchandising activities that contribute to the economic well-being of agriculture.

The 1982-83 Pennsylvania Maple Syrup Princess Kim Walberg, Watsburg, told the group what she accomplished during her reign and crowned the new princess, Deanna Stahlman.

Bernard Tobin, one of the direc-

FOOTE'S MAPLE GARDENS

**RD 2, Cornwall Cider Mill Rd.
Middlebury, VT 05753**

Distributors for U.S. MAPLE INC.

Green Tubing/Orange & Black Pipeline



**New Design Spouts & Tees,
Connectors and
4 way Manifolds
manufactured in
Middlebury, VT**

802/462-2472

EVERYTHING FOR THE MAPLE PRODUCER

**Grimm, Lightning & Waterloo
Evaporators, Lamb Tubing and
Supplies, Bacon and Kress Jugs.**

ORDER EARLY AND SAVE

HAROLD TYLER MAPLE FARMS

R.D.2, Worcester, N.Y. 12197

607-638-9474

tors of the Northwest Maple Producers Association, conducted the State Princess Contest.

Closing remarks and door prize distribution was done by John Deets, Titusville, another director of the Association.

On Saturday, September 24, the group visited Larry Young's Fruit Market, a vineyard, and the Penn Shore Winery in North East. In Wattsburg they toured Owen Johnson's sugar house, Charles Bush's maple operation and Greg Walberg's sugar house.

There were 118 persons in attendance representing maple producers, maple equipment manufacturers and

sales people and other interested persons. This group had people from all the maple producing areas of Pennsylvania, as well as New Hampshire, Vermont, New York and Canada.

The tour planning committee consisted of the following people: Charles Dengler, Saegertown; Mrs. Eugene Running, Cambridge Springs; Mrs. Lloyd Gates, Corry; John Deets, Titusville; Troy Firth, Spartansburg; Bernard Tobin, Cambridge Springs; Charles Bush, Wattsburg; Joseph Beard, Crawford County Extension Agent.

Joseph Beard

Crawford County Extension Agent



BAIN-GIRARD & CO.

MICHAEL GIRARD
GREG GIRARD

NEW & USED MAPLE SUGARING EQUIPMENT

We Are Agents For:

- SMALL BROS. EVAPORATORS
- LEADER EVAPORATOR CO.
- TEKNIK EVAPORATORS
- 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

ARCHIE'S SUGARBUSH

Dear Mr. Editor:

My wife she sez, "Honest Archie, sometimes she calls me Truthful Archie, please tell that nice Mr. Editor man about the time of the frozen steam."

Well, ya see, it was like this. We waz really boiling sap, this was the year after the winter of the blue snow. There was so much steam you couldn't see your hand in front of your face.

Well, after we made elebenty eleben gallons we started to run out of sap, so we decided to shut her down and go and eat. We hadn't eaten in 48 hours. Well, when we got back it turned cold, and I mean cold. When the fire went out in the evaporator that steam froze solid. It was like a room full of styrofoam. I opened the

door and couldn't get in.

I remembered my big corn knife, which I went and got, and began cutting that frozen steam into blocks about one foot square. We pried the door open so we could toss the blocks outside. We really had a pile of those blocks, almost as big as a house. We finally cut our way to the evaporator where we started a fire and melted the remaining steam inside the building.

It took days to melt that pile of frozen steam blocks outside. We had a heck of a time tripping over them. They was everywhere. I was glad when it turned warm and they all melted.



Your truthful friend
Archie



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.

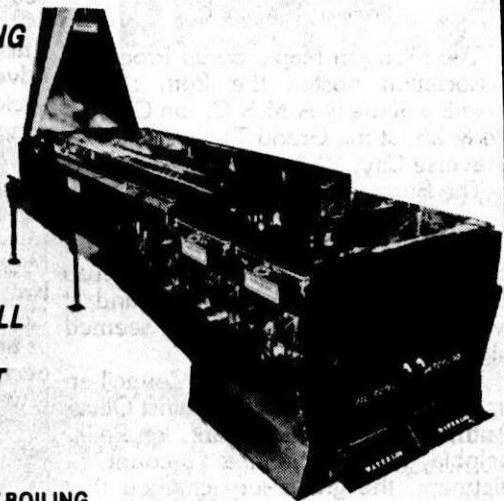
Processor and packer of maple syrup and candies in consumer packages.

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**

WATERLOO/ESCAN STEAM KETTLES

**A MUST FOR THE PRODUCER WITH
MAPLE SYRUP MARKETING IN MIND**

The WATERLOO/ESCAN steam kettles will reheat your syrup for sterile packaging. It will boil your syrup up to 255° Fahrenheit to produce your Maple Taffy, your Maple Cream, your Soft Sugar, your Candies and your Hard Sugar Blocks.



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, J0E 2N0 CANADA TEL.: (514) 539-3663**

1983 N. American Maple Syrup Council Meeting

by Michael A. Girard
Secretary N.A.M.S.C.

The Michigan Maple Syrup Producers Association hosted the 24th annual meeting of the N.A.M.S.C., on October 24 & 25, at the Grand Traverse Resort, Traverse City, Michigan.

The Business meeting included reports from 12 of the 13 member states. Most states seemed to have one thing in common and that was that syrup production was at best average and at worst, very poor. Syrup prices seemed higher than 1982 prices.

Russ Davenport gave the Council an up date on the court case against Oliver Anthony and Dewey Clark, of Philadelphia, Mississippi. In a 13-count indictment, the grand jury charged that the defendants manufactured, processed, shipped and sold foods labeled as maple syrup, maple table syrup, honey and sorghum syrup that were actually corn and sugar syrups, sometimes blended with the labeled product and sometimes artificially flavored. Both defendants pleaded not guilty to all counts at their arraignment. They were freed on bond to await trial in federal court.

Delegates were asked to enter into a discussion concerning the Maple Digest. Questions and concerns were voiced by the Delegates, advertisers and subscribers. Some had concerns regarding the format and the amount of financial support some states have for the Digest. A point was made that it is difficult for the industry to support two maple publications. Many people want to keep the two magazines and others say merging the two would eliminate a lot of duplication and the combined quality of two magazines would better serve the maple

industry. A publication board has been appointed and will start immediately. Within a 12 month period they will research the feasibility of merging the Maple Digest and the Maple Journal. This board will review the editorial and advertising policies and establish an associate editor and an entirely new subscription policy.

Officers elected for 1984 were Chairman, Gordon Gowen, New Hampshire; Vice Chairman, John Kroll, Minnesota and Secretary/Treasurer Michael Girard, Connecticut. Elmer Kress extended an invitation to the Council to hold its 25th annual meeting at the Ethan Allen Inn, Danbury, Connecticut, on October 26 and 27, 1984. It was voted and unanimously accepted by the Council. Pennsylvania's Maple Syrup association extended an invitation for the 1985 N.A.M.S.C. meeting, which was voted on and approved.

Francois Cyr, representing New Brunswick, Canada, has shown an interest in joining the N.A.M.S.C. New Brunswick will become the 14th state/province to

POLAK'S SUGAR BUSH

Proudly announces that
we are now a manufacturer's
representative for

KRESS JUGS

Place your order and we'll
arrange for your jugs to be shipped
(prepaid) to you from the factory.

Realize considerable savings!

POLAK'S SUGAR BUSH
W 1887 Robinson Road
Merrill, WI 54452
Tel: (715) 536-7251 - 536-4032

NATURAL AND L. P. GAS BURNERS

Proven Since 1952

ELMER WINTER

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

What Makes

A KRESS Jug?

Superior thread and neck finishes to assure proper sealing.

Minimal to no flashing

Extra thick walls to guard against deforming and to improve keeping qualities

Assortment of decorative designs available in choice of one or two colors



What do folks have to say about KRESS jugs?

Dear Sir:

I have recently tried some of your Kress jugs that I won as a door prize on the '82 New York Maple Tour. They are of higher quality than the _____ jugs I've used in the past.

*William VonMatt
Rome, New York*

Dear Sir:

We sell maple syrup and candy and have been using your Kress jugs for eight years ... we have a lot of comments about your jugs. Our customers love them. We are pleased with the quality of your jugs as we had used others before we used yours.

*John & Carol Deets
Titusville, PA*

Dear Sir:

We have used Kress jugs purchased through M.M.S.A., so we know they are good. Our customers say they are "cute".

*Paul Bergmann
Traverse City, MI*

Dear Kress Creations:

We are very discouraged with the metal cans as they rust and the caps and inner seals are assorted sizes. We have decided not to buy them next season. We feel that Kress jugs are the most attractive plastic containers of all the ones we've looked at ... Ninety-nine percent of the people who buy our syrup choose your container over the metal.

*Randy Whitcher
Warren, NH*

**Try KRESS jugs and become another one of our very satisfied customers.
If our jugs aren't available in your area, write or call us.**

KRESS

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

join the Council.

In addition to the annual business meeting, many presentations were given regarding maple syrup production, research and development as well as marketing. Participants included Michigan and Ontario maple producers and research and forest extension service staff from Cornell, Michigan, Ontario and Vermont Universities.

Ron Shaw, Ontario Delegate, introduced a series of speakers on "How Things are going in Canada".

John Butler, Extension Specialist, gave a slide presentation on the need for proper sugarbush management and the importance of regeneration of Maple seedlings, planting maples and the provincial sweet tree program.

Mr. Butler noted that 60% of the taps in Ontario are on tubing and the majority use dry vacuum.

Many innovative Ontario producers have increased efficiency by using sawdust as fuel, palletizing wood, using sap preheaters, and forced draft and also that there are 30 Reverse Osmosis units

★ FIVE GAL. CANS ★

1 1/4" or 3" screw cap & seal, welded seam, \$3.50 each (less in bulk).

Cardboard cartons for them .70¢. Also, Sugarhill Jugs and cartons; Waterloo equip; Tubing & fittings; Davies cans by the truckload.

W. Allen, Crogham, N.Y.
(P.O. Castorland 13620)
(315-346-6706)

now being used in Ontario. Some of Ontario's promotional activities include an exhibit at the Royal Winter Fair in Toronto, as well as displays at different fairs and Festivals within the Province.

Mr. Harold Kent, Ontario producer from St. Joseph Island, gave a presentation on his family's involvement in sugaring since 1919. Mr. Kent detailed the improvements and growth of the family operation through the years. Harold explained and gave a slide presentation of recent changes in the operation, such as the use of vacuum tubing, preheaters, reverse osmosis and the use of fertilizer in the sugarbush.

Mr. Bill Langenburg, Kemptville College, Ontario, gave a presentation on Marketing of Maple Products. Signs, news paper advertising, display ads and cooperative advertising were among the many types of advertising discussed.

Bill recommended a budget of 10% of the gross income for the first 3 years be directed to advertising. This can be reduced to 6% of the gross income on the 4th year and further reduced to 3% on the 6th or 7th year. All producers should continue to advertise regardless of sales.

"Maple Syrup Production in Michigan-How We Do It" included a series of presentations and speakers were introduced by Dean Rhoads, District Extension Leader, Cooperative Extension Service, Michigan State University.

Dr. Mel Koelling, Professor and Extension Specialist in Forestry, Michigan State University, gave an overview of Maple Syrup Production in Michigan. Dr. Koelling stated that many of the new innovations to the maple industry are being used in Michigan. Many unique

WAGNER'S SUGAR CAMP

Manufacturer's
Representatives for

KRESS JUGS

We'll arrange for your jugs
to be shipped (prepaid) directly
to you from the factory.

Realize considerable savings!

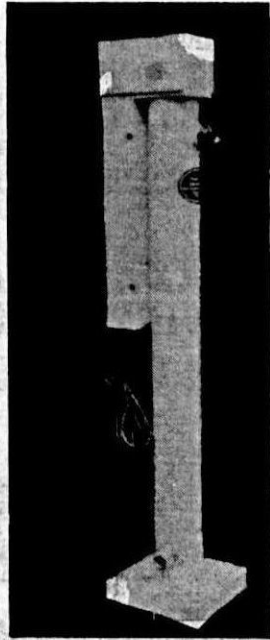
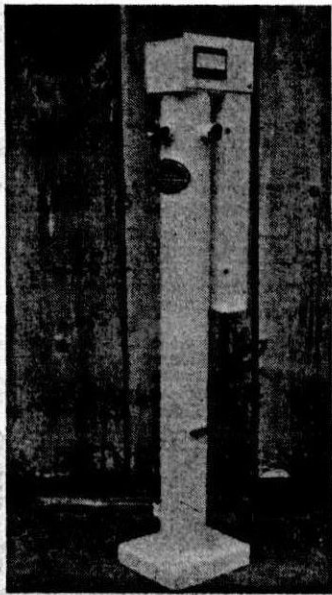
Write or Call . . .

WAGNER'S SUGAR CAMP
Wagner Road
West Salisbury, PA 15565
Tel: (814) 662-2904

**ULTRAVIOLET LIGHT: THE NATURAL
PURIFYING ENERGY OF THE SUN**

Kills Microorganisms

Greatly extends sap storage life



Tested by the University of Vt.

Sap Treatment Systems Co. Brandon, Vt

Distributed by Bill Coombs

Box 186 Wilmington, Vt. 05363

\$595.00 shipped UPS

Sales areas still open inquire Bill Coombs

as well as some small farm operations utilize only a fraction of the available maple trees in the state.

Dave Near, Michigan Syrup producer, described his sugaring operation of 10,000 taps and his experience with a vapor compression distiller. Dave uses a VCE and Reverse Osmosis unit to remove 95% of the water from the sap. Details on the cost of the equipment and cost to produce a gallon of syrup were presented.

Jim Nye, producer from Lapeer, Michigan, made a presentation on "How to make Tubing and Vacuum Pumping Work". Jim's comments outlined cleaning of tubing, locating vacuum leaks and sizing tubing properly.

The proper drill bit sized to the spile and care in drilling will decrease the

chances of vacuum loss at the taphole. Jim noted bleach should be considered a sanitizing solution, not a cleaning solution. Bleach will leave no residue, but if left in the lines, and diluted with sap can cause an off-flavored syrup.

Mr. Fred Laing, University of Vermont, gave a slide presentation on "Research and Development from all over the Country". Some notes on the Sweet Tree program, thinning sugarbush, wood residue fuels, acid rain, and other research topics were reviewed by Mr. Laing. A limited quantity of "Sweet Trees" are still available. Contact: Bill Baron, Vermont Environmental Protection Agency, 111 West Street, Essex Junction, Vermont, 05452. Cost: \$30.00 per 50 seedlings, including shipping.

MAPLE & METAL

A WINNING COMBINATION

FOR OVER 100 YEARS



FOR CANS • CARTONS • SHIPPERS • LABELS

FOR THE DEALER
NEAREST YOU
CONTACT US

DEALER INQUIRIES
INVITED

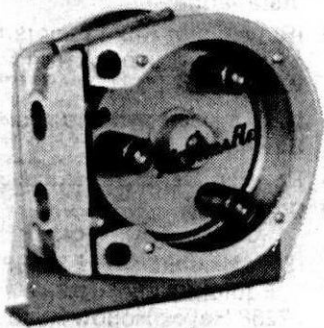
MAPLE SUPPLIES COMPANY

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

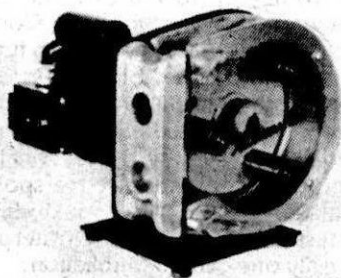
SAPSUCKER *XCENTRAFlo*

The SAPSUCKER, with its new name, has been joined by 16 other models powered by just about any means imaginable and is handling numerous liquid food and difficult chemical pumping and metering jobs throughout the World.

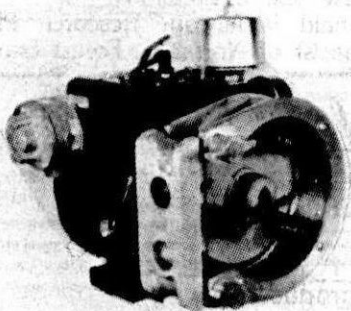
WE NO LONGER MAKE JUST THE BEST VACUUM PUMP IN THE SUGARBUSH!



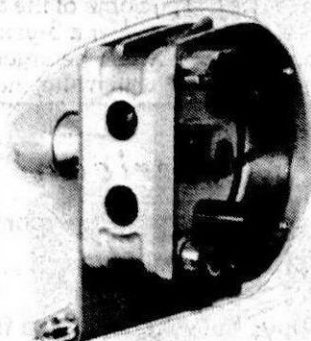
STANDARD



GEARMOTOR A/C



DUAL FUEL



TRACTOR PTO

PLUS: New improved tube materials [For all previous Sapsuckers too!] and numerous minor improvements that all add up to: **A GOOD IDEA GETTING BETTER!**

WE CAN HELP YOU
WRITE FOR YOUR FREE
BROCHURE NOW!

SUGAR CAMP, INC.

Rt. 2, Box 337, Rapid City, MI 49676
Phone (616) 331-6328

Fred Laing introduced Dr. Mariafranca Morselli, U.V.M., who spoke on several research projects including sap ultra filtration before entering R.O. units and the amount of toxic material a tree can withstand from acid rain.

Lew Staats, Extension Specialist, Cornell University, gave an update on Cornell's Maple Program. An overview of some of the work being done involves research on high vacuum vs sugar content of maple sap. A slide presentation was given on the planting and maintenance of the sweet tree program. Also, Cornell has been involved over the last two years in research with Vapor Compression Evaporators. A new proto type was at the New York State Fair last summer and they hope to run this unit next season. Lew noted a situation that needs to be addressed, is the health problem of the sugar maple. He spoke of one instance of heavy mortality in a forest infested with Forest Tent Caterpillar after only one year of defoliation.

Another instance in eastern New York, was the dieback of foliage in mid June. The edges of leaves turn dark brown and the leaves drop. Some of the affected trees have died off over a 3-year period. Looking for answers, he urged better communication within the industry

of these types of situations.

Ronald Wilkinson, Research Plant Geneticist of Northeast Forest Experi-



VACUUM TUBING INSTALLATIONS

- ★ We will survey your sugar bush and give you an estimate on cost.
- ★ IPL tubing stays in the woods all year.
- ★ We will travel anywhere in Western N.Y., Eastern Ohio or Northwestern Pa.
- ★ Expert team to assist in initial installation.
- ★ IPL vacuum tubing users had excellent productions in W.N.Y.
- ★ New & used evaporators. Big Savings.
- ★ Reverse Osmosis, woodsaver grates.

Call or Write Today!

SCHAMBACH'S MAPLE SYRUP
Equipment & Supplies
7288 Hayes Hollow Road
West Falls, N.Y. 14170
Phone: (716) 652-8189

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?



Small Brothers Inc.

Champlain Chevrolet Bldg.
Enosburg Falls, Vermont, USA
05450

423 Main Street
Dunham, Que. Canada
JOE 1MO

Tele. (514) 295-2451 2441

MANUFACTURERS OF A COMPLETE LINE OF SUGAR MAKERS SUPPLIES

FAMOUS SINCE 1890

OVER 50 U.S. DEALERS

EVAPORATORS

From 2 x 4 to 6 x 22
5 Models to Choose From

NEW and USED
Hobby model evaporator
Oil Fired Arches

Preheater hoods
Stainless steel pans
Gas finishing fires
24 x 30 to 4 x 6
Wood Finishing pans

Filter tanks
Sugar machines
Butter machines
Candy molds
Thermometers
Hydrometers
Storage tanks

Used buckets
Gathering buckets
Complete vacuum systems
SIH pumps
Filters
Heated canner
Pumps

Lightning

EVAPORATORS

"BUILT TO BOIL FASTER"

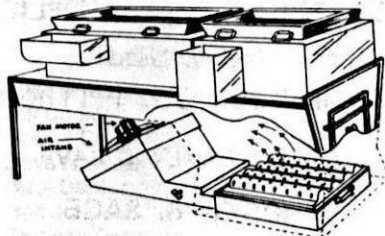
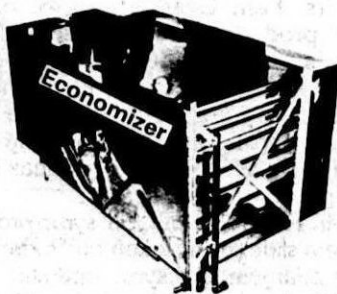
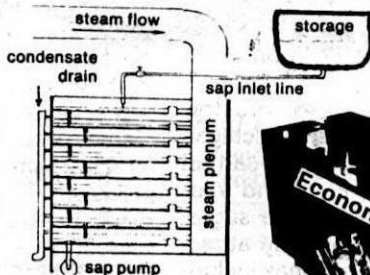


Reverse Osmosis 100-20,000 taps
16 models

Cut operating costs by approximately
75%. Designed for both small and
large maple operations.

New Economizer

Raithby Economizer
Utilizes all steam from existing
evaporator. Increase total
efficiency to 65%. Can be installed
on any evaporator. 40%
fuel consumption decrease.



New Woodsaver

Increase your heat by 20% and burn 50% less wood? Impossible! Wrong, it is being done. Designed to be installed on any make of woodfired arch.

Send me complete FREE information, catalog and price list and nearest distributor

Name _____
Address _____
Zip _____

Have your representative contact me as soon as possible.

Telephone (____) _____
Number of Taps _____

ment Station, was introduced by Fred Laing. Ron will work on Research for Genetic Improvement of Sap and Sap yield in the sugar-maple. The Williams-town, Massachusetts Plantation was described and is being used to monitor growth of maples and sap sugar content under plantation conditions. Survival rate in this plantation is 90% over 23 years. Trees are not sprayed and only mice protection was used in earlier years.

John Butler, Secretary/Treasurer of the Ontario Maple Syrup Producers Association, reviewed results of a survey completed by their association of all state and provincial syrup producer groups. The information obtained was tabulated into a report detailing year formed, membership and dues, funding, assistance of outside groups, meetings, tours, advertising marketing, etc. Eleven associations replied to the survey. John also presented the new Maple Logo for Ontario Pure Maple Syrup.

Dr. Mariafranca Morselli, U.V.M., gave a slide presentation outlining growth of Microorganisms in tubing stored between seasons. Dr. Morselli also gave favorable results on tests on an in-line ultra violet light used to treat sap as it enters storage tanks.

Mr. Dean Rhodes introduced a series of speakers with presentations on Michigan Maple topics.

Mrs. Fern Gearhart, spoke on how she produces and markets Michigan maple syrup products. Mrs. Gearhart has a 5,000 bucket operation and markets her syrup products at the sugarhouse and by mail order. Many attractive packaging and display ideas including gift boxes were shown.

Mr. Frank Majszak, MI. syrup producer, gave a slide presentation on "Experiences with a large maple syrup operation". The 16,000 tap operation includes 50 miles of tubing. 10 miles of mainline on wire and three miles of buried mainline. Seven vacuum or pressure pumps feed the sap to the storage tanks at the sugarhouse. Frank uses an R.O. and a wood fired evaporator to produce the syrup and then stores the syrup in unique underground syrup storage tanks.

Larry Gearhart, described Michigan's first maple syrup week and how they did it. Larry gave an overview of procedures on advertising and financing a maple syrup week.

George Fogle described the wholesale maple syrup business in Michigan. George noted that the Michigan producer does not specifically produce syrup for wholesale purposes and generally sells direct to the consumer or store. Michigan is a deficit syrup producing state and is importing more syrup than it is producing.

Ted Johnson, producer from Michigan's upper peninsula, briefly described his 5,000 tap operation and detailed advantages and disadvantages of wood residue combustion systems. The types of wood residue fuels available are sawdust, wood chunks, pellets, blocks, briquettes and debarking residue. Ted gave a slide presentation on system design and also the costs of the wood residue fuels.

Prof. Putnam Robbins, retired For. Prof. MI. State Univ., highlighted his observations over 60 yrs. of maple syrup production. Prof. Robbins, continued through a lesson in the history of MI. maple syrup. Many news articles, buckets, pictures etc., part of a 40 yr. collection, was donated to the Maple Museum in Crogan, N.Y. by Prof. Robbins.

Ms. Jean Story Commodity Program Coordinator, MI. Dept. of Agric., outlined an active campaign in MI. to promote agric. products. Marketing tools and lifestyle marketing were some of the topics discussed.

EVAPORATORS & SUPPLIES

New & Used

LAMB TUBING & FITTINGS

ORDER EARLY & SAVE

ROGER C. SAGE

4449 SAGE ROAD
WARSAW, N. Y. 14569

Tel: 716-786-5684

MEMTEK PROUDLY INTRODUCES THE NEW BABY MAPLE UNIT

COMPACT IN SIZE: Half the size of a kitchen fridge.

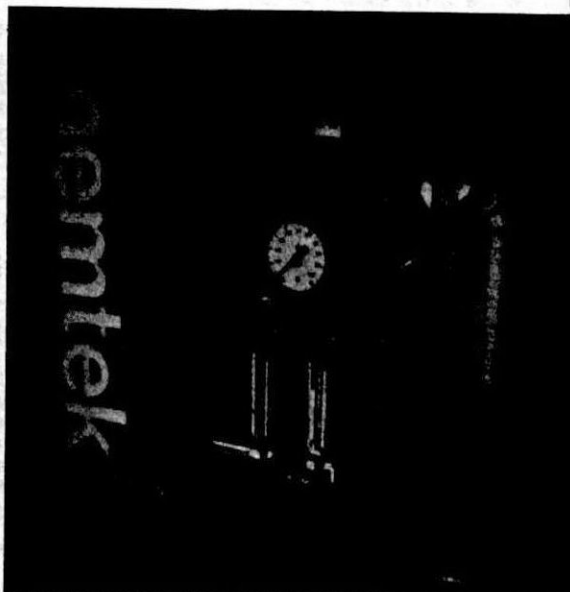
VERTICAL MEMBRANE CIRCULATION: For ease of drainage.

COMPLETELY INSULATED AND HEATED: To prevent frost damage.

EASY OPERATING INSTRUCTIONS: Printed on the front panel.

NEW SUPER MEMBRANE: With high flux rates and immune to bacteria attack.

ELECTRONICALLY PROTECTED: Shuts-off when unit is out of sap. High pressure relief valve also protects the membrane.



AVAILABLE IN A VARIETY OF SIZES

Model Number	Number of Taps	Number of Membranes	Dimensions		
			W	H	D
MRO- 40S	500-1226	1	24"	36"	24"
MRO- 80S	1226-2453	2	24"	36"	24"
MRO-120S	2453-3680	3	24"	36"	24"

Contact Your Memtek Sales Representative Today

Mike Girard.....	Simsbury, CT.	203-658-5083
Bill Coombs.....	Wilmington, VT.	802-464-5232
Robert Coombs.....	Jacksonville, VT.	802-368-2452
Dave Mayotte.....	Fletcher, VT.	802-849-6810
Nate Danforth.....	Montpelier, VT.	802-229-9536
Dan Johnson.....	Jaffrey, NH.	603-532-7379
Thomas Todd.....	Norwood, NY.	315-352-2808
Frank Schambach.....	West Falls, NY.	716-652-8189

POTENTIAL DISCREPANCIES IN APPLYING U.S. AND CANADIAN SYRUP COLOR STANDARDS

by

L. D. Garrett¹
Forest Economist, USDA
Forest Ser., Flagstaff, Ariz. 86001
M. F. Morselli
Res. Assoc. Prof., Botany Dept.
Univ. of VT. Agric. Exper. Station
Burlington, Vt. 05405
W. L. Jenkins, President
Vermont Country Maple, Inc.
Jericho Center, Vt. 05465

Abstract

With both the U.S. visual method and the Canadian spectrophotometric method, we color-graded 120 maple syrups produced and graded in Vermont and 53 syrups produced and graded in Canada. Results indicated that the spectrophotometric measure of variation corresponding to each of the U.S. visual grades is lower than that specified in the Canadian standards.

INTRODUCTION

Standards for maple syrup products are established to ensure their proper manufacture and to provide consumer information. Today, all maple syrup grading systems in the U.S. use visual comparison with either glass-chip or caramel-glycerol solution color comparators as standards (Table 1). The judgment is not made using a spectrophotometer. However, the visual standards were developed using a spectrophotometer. Percent light transmittance (% T) values of not less than 75.0, 74.9 to 60.5, and 60.4 to 44.0 correspond to U.S. Grade A-light, medium, and dark amber, respectively (USDA 1979).

In Canada, two grading systems

¹This research was undertaken in cooperation with the University of Vermont while the senior author was forest economist and W. L. Jenkins was a chemist at the George D. Aiken Sugar Maple Laboratory, Northeastern Forest Experiment Station, Burlington, Vermont.

NEW YORK STATE

Lithoed Metal Containers



- For Dealer Nearest you contact us.
- Dealer Inquires Invited

Prime Container Corporation

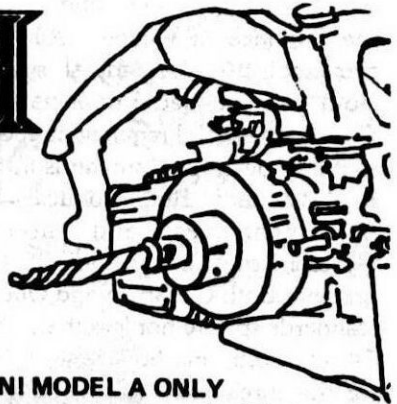
P.O. Box 38, 40 Marble St.

West Rutland, Vt. 05777

802-438-2312

EZ 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....\$10 each.

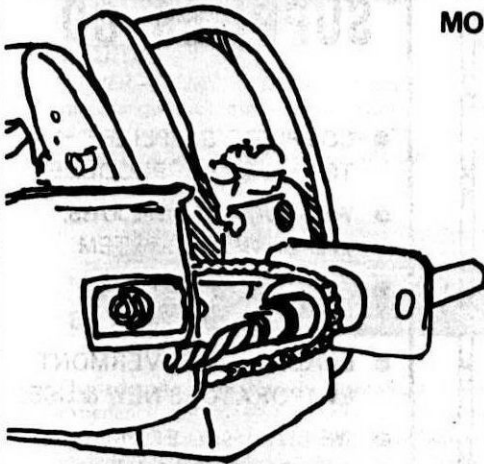
REMEMBER-BY USING A CHAIN SAW TO TAP WITH, YOU CAN CHOOSE YOUR OWN SPEED.

CAUTION! MODEL A ONLY

Do NOT run either model with excessive speed. Run your saw at a fast idle. Stop the tapper from turning with your gloved left hand. Then place against the tree and let go. Rev the motor just enough to cut the hole. Hold with the gloved hand and remove.

IMPORTANT!

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



MODEL B

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, \$10 each. Comes with 7/16 left hand bradpoint bit. With the unit on the saw and the chain guard in place, hold the tapper and pull the chain tight, then tighten the bar nuts.

1/4" 99 100 101

USE THESE SAMPLES TO CHECK CHAIN PITCH.

76 77 78

.325"

68 69 70

3/8"

Nelson Maine, R.D.#2, Worcester, N.Y. 12197 (603) 428-7284

exist, a federal system and one for the Province of Quebec. All other provinces use the federal system. Both the Quebec Provincial and Canadian Federal regulations specify that the spectrophotometer is the official standard. But, producers use permanent glass and caramel-glycerol visual kits for unofficial field grading. Both Canadian and Quebec standards specify not less than 75.0, 74.9 to 60.5, and 60.4 to 44.0 % T for the three table grades of syrup (Agric. Canada 1977, Quebec Minister Agric. 1980) (Table 1).

EVALUATION OF VISUAL AND SPECTROPHOTOMETER STANDARD

Examination of pure maple syrup visual and spectrophotometric standards has revealed a discrepancy in application. Morselli and others

(1982) found that a glass chip or corresponding caramel-glycerol solution and pure maple syrup, which visually look the same, give different readings in a spectrophotometer.

To investigate the phenomenon, 173 standard density (66°Brix) samples of filtered pure maple syrups, representing the three table grades, were packed in glass bottles directly from producers: 120 from Vermont and 53 from Canada. Percent transmittance values were determined on all syrups at a wavelength of 560-nm in a dual beam spectrophotometer with a pair of optically matched quartz cuvettes with a 10-mm light path. Chemically pure glycerol was used as the 100% T reference.

YES!

**KRESS jugs are available
in New Hampshire**

One and two color designs

CONTACT:

*Ancestral Acres
R.F.D.
Ashland, NH 03217*

*Hardscrabble Tree Farm
35 Bridge Street
Colebrook, NH 03576*

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

**Give Us A Call or
Write For Catalog**

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

U.S. MAPLE



TUBING CONNECTORS SPOUTS "T's"

SPOUTS

- Black color aids in rapid tap-hole thawing.
- For removal use 1" wrench or hammer.



CONNECTOR

- Will not pull apart.



SPOUT-PLUG

- Interconnection between "T" and spout.



SPOUT-PLUG

- 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.

TUBING

"SUPER-COLD" — Green translucent color. I.D. is standard for complete interchangeability. Minimizes ultraviolet sunlight deterioration. Blends with nature in summer for year round lines. Has a broad temperature range in which elasticity remains the same. Excellent for cold weather use and reduces extreme sags in warmer weather.



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 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.

U.S. Maple Inc. is owned by the following producers:

Bruce Bascom, Bascom's Sugar House, P.O. Box 138, Alstead, NH 03602
(603) 835-6361, 835-2230

Hilton Foote, Middlebury, Vt. 05753
(802) 462-2472

Smada Farms Inc.

has everything a
MAPLE PRODUCER needs.

GRIMM - LIGHTNING

EVAPORATORS - PANS

LAMB TUBING & FITTINGS

KRESS JUGS

**SMALL BROTHERS
EQUIPMENT**

BACON JUGS

LITHOGRAPHED CANS

--- NEW PRODUCT NEWS ---

**AUTOMATIC DRAWOFF
110 volt**

A drawoff which completely compensates for barometric pressure changes without a boiling water probe. Digital temperature readout and syrup temperature adjustment from boiling point of water to 9.9 above boiling point.

... ..

**WE BUY & SELL BULK SYRUP
NEW & USED EQUIPMENT
CATALOG AVAILABLE**

Star Route Rt. 41 N
GREENE, N. Y. 13778

607-656-4058

Visual grading was accomplished with an official USDA permanent glass color comparator using daylight illumination (Willits and Underwood 1961). Measurements were made at room temperature on clear syrup samples with no air bubbles.

Visual grades were determined by the consensus of three people experienced in the color grading of maple syrup. Independent instrument light transmittance values were obtained by persons not involved in visual grading.

The original grade of all syrups used in the analysis was verified. The 53 Canadian syrups were verified with a permanent glass color comparator. These were also the methods used in grading the syrups originally. No color grade changes had occurred in any syrup after packing.

The 173 syrup samples were graded again using a permanent glass-chip color comparator. Each of the color-graded syrup samples was tested in a spectrophotometer for its % T.

The % T of all syrup samples in each of the three table grades was then statistically analyzed. The results revealed a discrepancy between visual and spectrophotometric grading.

RESULTS

Figure 1 presents a summary of the statistical analysis of the % T of all syrups graded visually as Grade A-light, medium, and dark amber. For each visual grade category, we determined the mean and standard deviation of % T.

The three dark lines in Fig. 1 represent the % T "mean" (midpoint cross), and "one standard deviation" from the mean for all syrups visually grad-

Figure Legend

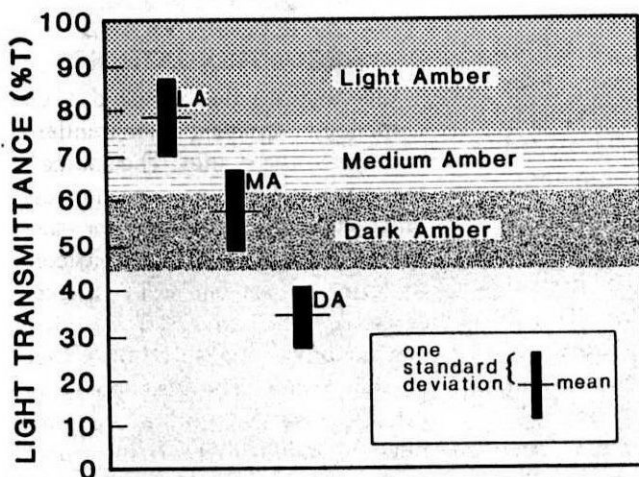


Figure 1.--Means and standard deviations of the spectrophotometric values of 173 maple syrups visually graded into the three table grades.

ed into each of the three table grades. The "standard deviation" measures the spread of the values around the

mean. For a normal distribution of values, 68% are within one standard deviation of the mean. For example,

H. W. Cook Farm Service, Inc.

DeRuyter, N. Y. 13052

Serving the Maple Industry for
Over 60 years



Leader - King Evaporators
Gas & Electric Tree Tappers
Bits, Filters, Spouts
Sap Buckets, Covers
(new and used)
King Plastic Sap Bags
Metal Decorated Syrup Cans

Sugarhill Plastic Jugs
Rubber Candy Molds
Maple Cream Tubs
Lamb Tubing & Fittings
Pellets
Storage & Gathering Tanks

Open daily 8:00 - 5:00

Phone: 315-852-6161 and 315-662-7208

Write for Free Catalog

the mean % T for all syrups which visually graded light amber was 78.1 (Fig. 1, cross line on the highest dark vertical line). The mean is above 75.0% T, which is the lowest % T to qualify a syrup as light amber. However, many syrups which visually graded light amber actually graded lower using the spectrophotometer.

The darker the syrup is, the greater the discrepancy. For example, the mean for syrups visually graded medium amber is 57.5% T. This is below the minimum standard spectrophotometer reading for medium amber (60.5% T).

Almost all syrups graded dark amber visually would be Grade B using the spectrophotometer. That is, the mean (33.9% T) plus one standard deviation of all visually graded dark

amber syrups actually fell below the minimum spectrophotometer value for dark amber (44.0% T).

CONCLUSIONS AND RECOMMENDATIONS

Our analysis has revealed a discrepancy in applying color standards to maple syrup grades. The source of the problem is that a syrup and a caramel-glycerol solution and/or glass-color comparator of the same color (determined visually) will not necessarily have the same % T at a given wavelength as measured by a spectrophotometer. The discrepancy results because the syrup and caramel have slightly different spectrums. Syrup will look darker to the spectrophotometer than it will to the eye in comparison with either of the currently used color comparators.

SPECIAL

CAR LOAD SALE

SPECIAL

SAVE ON YOUR

PLAIN 1 — GALLON MAPLE SYRUP CANS

Special price until supply gone

packed — 30 — 1 gallon cans per case

.60¢ each plus shipping charges

Order now and save

Write or phone



REYNOLDS

SUGAR BUSH INC.

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

sugarhill

MAPLE CONTAINERS



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

“SEE YOUR DEALER”

OR CALL

SIS — (413) 665-2111

RUSS — (413) 625-2866

Two approaches could be taken to resolve the problem:

1. Establish the glass-chip color comparator as the universal standard for color grading. The use of caramel-glycerol standards should be discontinued because of their tendency to fade.
2. Change the % T standard to accommodate the different spectrums for caramel and syrup, and continue to use both the glass-chip color comparator and the spectrophotometer.

The most practical approach would seem to be establishment of the glass-chip visual-color comparator as the universal standard. It is the most widely used and understood system, is easiest to apply, and is less expensive than the spectrophotometer. It is the U.S. Federal standard and is included in the latest Federal Canadian maple products regulations as an unofficial alternative to the spectrophotometer.

The second alternative would require a change in spectrophotometric values to accommodate spectrum differences between caramel and syrup. To accomplish this, new % T values must be used for a 10-mm rectangular cell at 560-nm wavelength. The % T values derived in this study are presented in Table 2.

LITERATURE CITED

Agriculture Canada. 1977. Canadian Agricultural Products Standards Act: Maple products regulation. Can. Gaz. Part II. 3(9):1908-1917.

Morselli, M. F., W. L. Jenkins, and L. D. Garrett. 1982. Color grading maple syrup: the U.S. and Canad-

ian methods. Univ. Vt. Agric. Exp. Stn. RR 20, Burlington.

Quebec Minister of Agriculture. 1980. Maple products and substitutes. Agricultural Products and Food Act, Q.C. 1240-80. Gazette Officielle du Quebec 112(24), April 28, 1980.

U.S. Department of Agriculture. 1979. U.S. standards for grades of maple sirup. Fed. Reg. 44, No. 242, Dec. 14, 1979.

Willits, C. O., and J. C. Underwood. 1961. Methods of analysis for maple sirup: USDA color comparator. J. Assoc. Off. Agric. Chem. 44(2):330-333.

TABLE I

Table 1.--Current U.S. and Canadian Federal standards for table grade maple syrups

U.S. Federal ^a		Canadian Federal ^b	
Grade	Standard (Visual)	Grade	Standard (Spectrophotometric, % T)
Grade A. Light amber	Not darker than Light amber Standard	No. 1. Extra light	Not less than 75.0
Grade A. medium amber	Not darker than medium amber standard	No. 1. light	74.9 to 60.5
Grade A. dark amber	Not darker than dark amber standard	No. 1. medium	60.4 to 44.0

^aApplies to all states without existing standards; optional in states with voluntary standards. Permanent glass-chip and caramel-glycerol visual-color comparators are acceptable.

^bApplies to all provinces without existing standards. Percent light transmittance through 10-mm cell at 560-nm wavelength. Quebec's standard is identical for all table syrup color grades.

CLASSIFIED

"CHIEFTAIN WILD RICE", the ideal companion item to sell with your delicious Maple Syrup. For full information write: Chieftain Wild Rice Co. Rte. 7, Hayward, WI 54843

ULTRAVIOLET TREATMENT OF SAP A PROVEN SUCCESS. 1983 UVM research project finds in-line ultraviolet treatment of maple sap a viable solution to high microorganisms. Treated sap produces higher grade syrups and allows longer sap storage periods. Write or call for complete details. Sap Treatment Systems Co, Box 307, Brandon, VT. 05733 802-247-6139

FOR SALE: Lightning 5' x 16' evaporator with hood and stack. U.S. made by G. H. Grimm Co. 2' x 6' propane finishing unit and filter tank. This equipment never used. I'm helping sell it for a friend. \$6,000 BOB LAMB, Box 368 Bernhards Bay, N.Y. 13028. Phone: 315-675-3652, Home phone: 315-675-3559.

Groen 40 gal. self contained steam kettle, gas fired, natural or propane. Like new condition. Other kettles also available. Sugar Bush Supplies, 2611 Okemos Rd., Mason, MI 48854. (517) 349-5185

FOR SALE: Leader 4 x 14 evaporator, very good shape, complete, asking \$2400. 802-464-2759 David Matt.

FOR SALE: 5* 8 King Flue pans, each has own arch with high temp. Plybricko Insulation, stack, and oil burners. One has a pre-heater. They are trained to work together for \$4,500. But will separate to a good home for \$2,500 each. Call Bill Coombs, 802-464-5232, Wilmington. VT

FOR SALE: Used sap buckets "Wheeling" galvanized. Top condition covers & grimm spouts/hooks. 5000 available price varies with quantity \$2.50 - \$3.00 call: Bill Coombs-Wilmington, Vt. 05364 802-464-5232

FOR SALE: New never been used - 2 x 6 evaporator - 60 buckets with covers - \$600 Telephone No. 717-756-2757.

WANTED: Agents or Distributors to sell complete line of Canadian Maple Syrup Equipment. SMALL BROTHERS INC., P.O. Box 160, Dunham, Quebec, Canada. JOE IMO. Tel: 514-295-2451.

3' x 10' Lightning s.s. pans; preheater hood; 4 x 16 Grimm wood fired complete, gas fired finishers, used tubing, Universal vacuum system, several Sapsucker vacuum pumps, used wood fired arches. SMADA FARMS INC., Star Route, Greene, NY 13778. 607-656-4058

FOR SALE: Used Osmonics R/O 1 year old, 6 membranes, 2 used 1 year and 4 brand new. Model 330-43. price \$12,000. negotiable Call Bill Coombs 802-464-5232 Wilmington, VT. 05363

FOR SALE: 500 taps with tubing .50¢ tap. Gas tapper \$100.00. 2 unused drums \$35.00 each. 207-338-3239

FOR SALE: 4 x 12 Leader pans (Vermont style); 4 x 12½ Wood-fired arch; new smoke stack. Cliff Nightingale, R.D.5, Amsterdam, N.Y. 12010 518-882-9334.

FOR SALE: Woodfired 6 x 16 King Evaporator. Pans in fair condition, arch, stack & grates excellent. \$6,000. Two 50 bbl storage tanks, \$400 each. Jim Green, Box 305, Mt. Storm, WV 26739.

TABLE 2

Table 2.--Suggested revised light transmittance for maple syrup grades to accommodate spectrum differences between caramel-glycerol solutions and pure maple syrup

Syrup grade	Light transmittance ^a
Grade A	
Light amber	Not less than 64.5%
Medium amber	Not less than 51.5%
Dark amber	Not less than 29.0%

^aChange from not less than 75.0, 60.5, and 44.0 for light, medium, and dark amber, respectively, using 560-nm wavelength, 10-mm cell and using chemically pure glycerol as 100% T baseline.

Bringing Home The Bacon.



Bacon Jugs join the Hussey family of fine molded products.

At Hussey Molding, we're proud that Charlie Bacon has chosen us to continue his maple syrup packaging business.

We're especially pleased to carry on the Bacon tradition of quality because we've manufactured their packaging for years.

Hussey now brings you the Bacon: Charlie Bacon himself is here to make sure everything goes smoothly with Bacon's complete line of supplies, backed by continuing fine service.

- Famous Bacon Jugs—8 oz., pint, quart, half-gallon, gallon and our new 4 oz. Sampler jug.
- Embossed Maple Leaf Flasks—14 oz. transparent plastic to show off your finest syrup. Also available in traditional Bacon color.
- Custom Printing—jugs and labels
- Name and Grade Labels
- Cartons—individual mailers and multi-pack shippers



Hussey Molding Corporation
One Sundial Avenue
Manchester NH 03103
603/669-2500

Where to Find Bacon Packaging:

Maine

- 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

Massachusetts

- Devon Lane Farm Supply Inc., Daniel Shays Hwy.,
Belchertown, MA 01007 (413) 323-6607
James Ewen & Sons, 66 Elmwood Rd., Lunenburg, MA 01462 (617) 582-6655

Michigan

- Sugar Bush Supplies, 2611 Okemos Rd., Mason, MI 48854 (517) 349-5185

New Hampshire

- 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

New York

- 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
Farnum & Cumming Maple Products, Locust Street,
Roxbury, NY 12474 (607) 326-7226 or (607) 326-7569
David Nascimbeni, Glen Durham Sugarhouse, Cairo, NY 12413 (518) 622-9878
Larry Smith, Rt. 55, Box 177, Napanoch, NY 12458 (914) 647-5539
Harold Tyler, Maple Farms, Tyler Rd., Westord, NY 13488 (607) 638-9474
Neil C. Wright, 28 Liberty St., Camden, NY 13316 (315) 245-1519
(315) 245-1434

Ohio

- Wyman W. Manes & Son, East Orwell, OH 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

Pennsylvania

- Northeastern Pennsylvania Maple Producers Association
Court House, Honesdale, PA 18431 (717) 689-2353 or (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 c/o Dale Jeffrey,
Box 15, Wagners Rd., W. Salisbury, PA 15565 (814) 662-2904

Vermont

- 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
Danforth's Sugar House, County Rd., Montpelier, VT 05602 (802) 229-9536
Hilton Foote, Cornwall Cider Mill Rd., Middlebury, VT 05753 (802) 462-2472
Leader Evaporator Co., St. Albans, VT 05478 (802) 524-4966
David R. Marvin, Johnson, VT 05656 (802) 635-7483
David Mayotte, E. Fairfield, VT 05448 (802) 849-6810
Vermont Sugar House, Exit 3, I-89, So. Royalton, VT 05068 (802) 763-8809

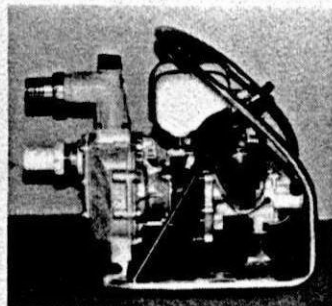
Virginia

- Ivan Puffenbarger, Rt. 637, Blue Grass, VA 24413 (703) 474-2771

Wisconsin

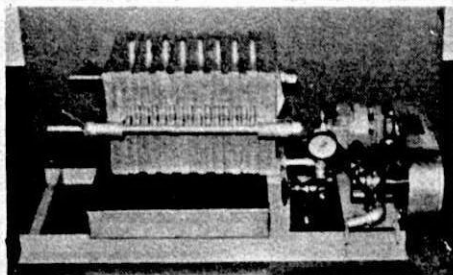
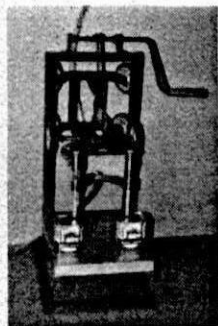
- Reynold's Sugar Bush, Inc., Aniwa, WI 54408 (715) 449-2057

MORE NEW ITEMS FROM "LEADER"



A compact 2 cycle gas engine driven centrifugal pump. Capable of delivering upwards of 80 gallons per minute - 1½" ports - dependable TAS engine. This one will surprise you.

Too troublesome to fill cans? Not anymore, with a 2 spout gravity filler. Designed by a local producer, the simplicity makes for a very dependable unit. Adjustable table for all size containers.



The LEADER 10" plate and frame PRESSURE FILTER is offered because of numerous inquiries from the Maple Producers for a larger filter press.

Thoroughly tested by both producers and packers. Filtering capacity of up to 150 gallons.

WE EXTEND OUR BEST WISHES

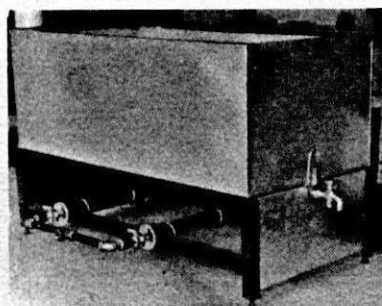
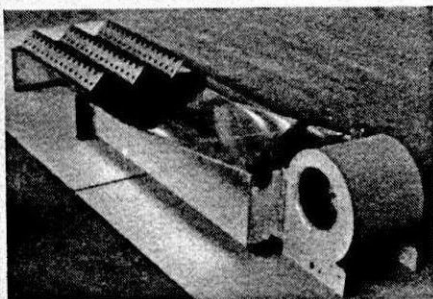
Have you checked on the Raithby Economiser? Maybe this will give your operation the needed increase in production. We are a licensed manufacturer for the U.S.A. Give us a call.

QUALITY AND SERVICE SINCE 1888

FOR THE MAPLE SYRUP PRODUCER

The LEADER air induced units used with wood firing are set up with 4 speed direct drive blowers to offer the correct amount of forced air.

Use only *dry*, seasoned wood.



The LEADER 16" x 32" gas fired finish unit is ideal for the small canning operations and "boiling down" to make candy or sugar. 2 projected port ring burners rated at 33,000 BTUs for a well balanced unit.

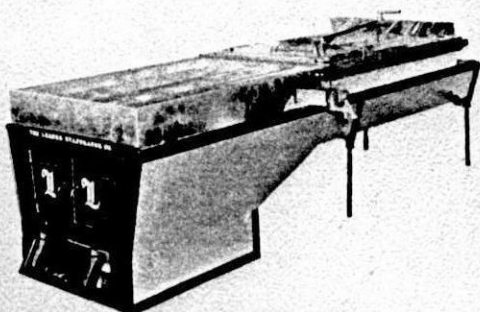
LEADER - KING - VERMONT
EVAPORATORS
with the most sq. ft. of
heating surface

STORAGE - GATHERING TANKS
dependable - rugged

LAMB - MAPLEFLO PIPELINE
O.O. CANS - CARTONS

BACON - KRESS - SUGAR HILL JUGS

ADDITIONAL ITEMS FOR THE
MAPLE SUGAR MAKER



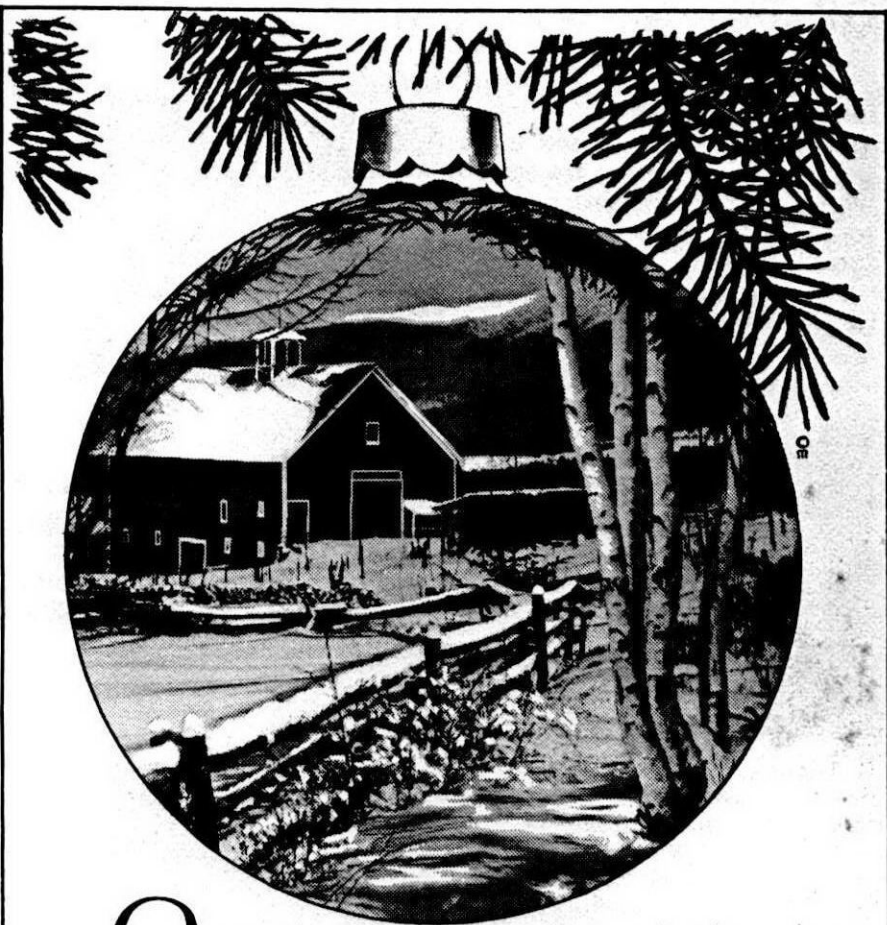
FOR THE HOLIDAY SEASON

Leader Evaporator Co. Inc.

25 Stowell St.

St. Albans, Vermont 05478

TEL: (802) 524-4966 or 524-3931



*O*ver the river and through the
woods... bringing with us
tidings of true Christmas spirit.
It's been our pleasure to serve you.

Bob & Florence Lamb