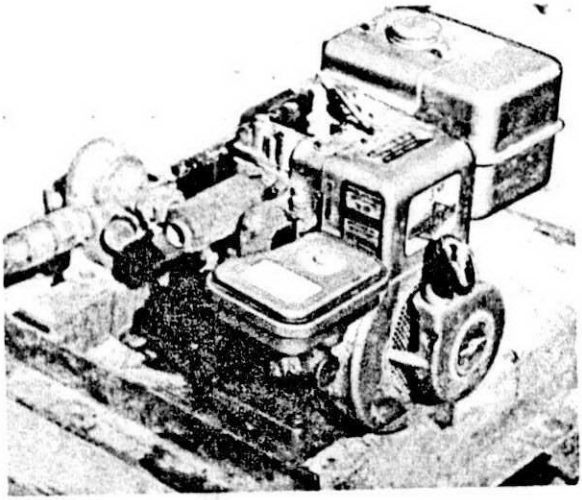
NATIONAL MAPLE SYRUP DIGEST

Vol. 14, No. 4 December, 1975



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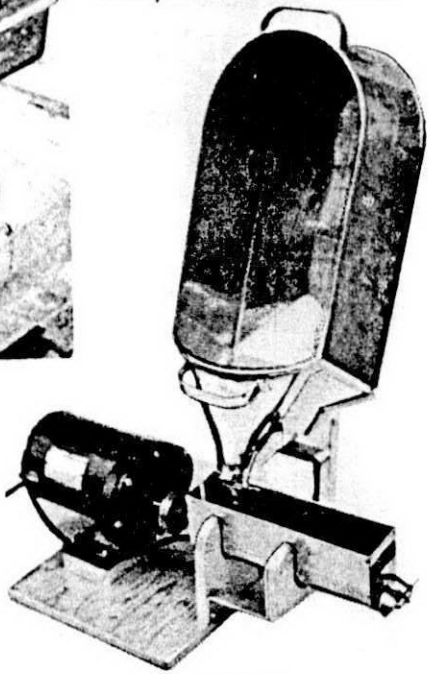
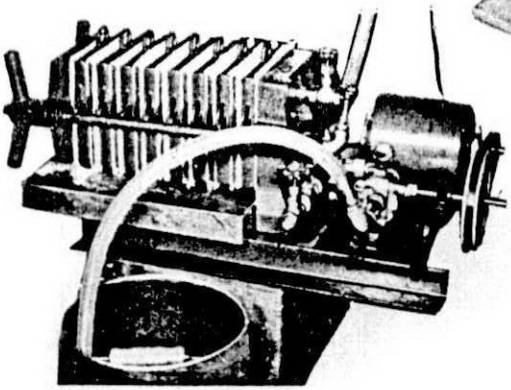


SAP PUMP SUCKER FOR EFFORTLESS GATHERING

Pump and engine 50 ft. 1 inch Dia. Rubber Hose



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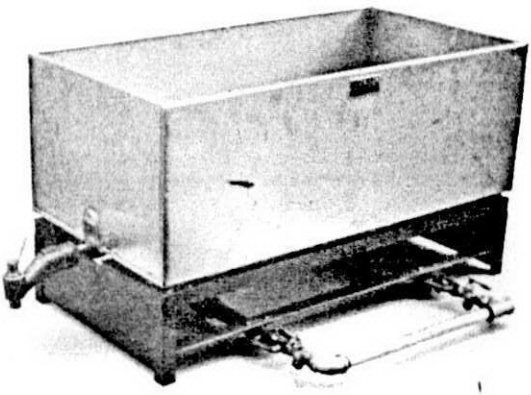

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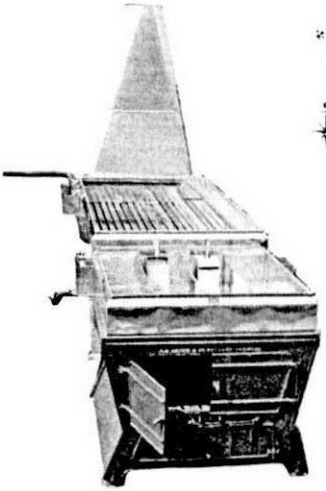
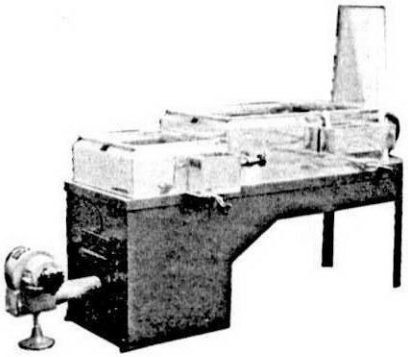
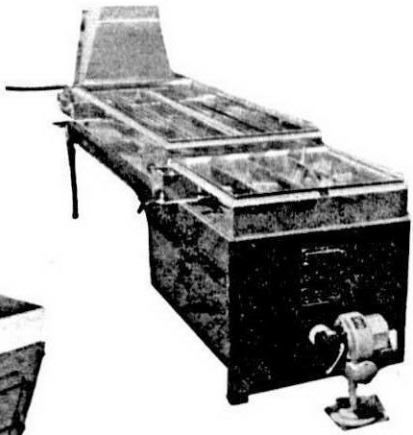


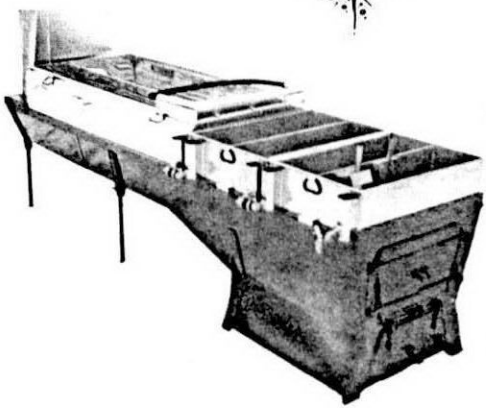
4′ x 12′ WOOD LIGHTNING



2′ x 6′ OIL LIGHTNING



4′ x 14′ OIL LIGHTNING



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COVER PICTURE–

This time it's a real "oldie". Fred Winch found the negative when he cleaned out his office. It's a glass negative taken Mar. 23, 1910 by Julian A. Dimock, East Corinth, Vt.

That's all we know about it.

Editorial

The North American Maple Syrup Council held its 16th annual meeting at Blackwater Falls Lodge near Davis, West Virginia on Oct. 28 and 29, 1975, and it was a most enjoyable time. The lodge contained over 50 rooms, all kinds of conference rooms, lounges, dining rooms, even a gift shop, you name it, they had it. I don't remember seeing a swimming pool, but in October, who cares. Anyway, there was room in the lodge for everyone except Adin Reynolds, who apparently preferred to commute. (From Wisconsin?)

Why did the Council go to West Virginia? Partly because the Council hopes the producers there will form an association and join the Council in the near future, but mostly because William Kidd, Extension Forester of West Virginia and a good friend of the Council invited us there this year. Bill is especially interested in maple and while the state is not a large producer of maple syrup now, it has plenty of potential. There are millions of maple trees, in fact, the Sugar Maple is their state tree. There's cheap fuel: you can dig coal out of the side of almost any hill. The climate is right, being comparable to New York State or southern Canada. (It's a lot further south but pretty high up.) You might have to tap a little earlier like Ohio does, but that's no problem. The resources are there, they just need someone to develop them.

I really liked West Virginia. Maybe it's because I like the hills, having lived in them all my life. But their hills are a lot bigger, a lot more often and a whole lot more sudden. They don't seem to bother the hardy folks who live there. They farm the sides of them, some places clear to the top. Mary Lou and I went to Williamsburg and Charlottsville, Va., on the way making it our vacation as a lot of the other folks did. On the way from Charlottsville to Davis, we came over one of the highest ridges and just over the top, pulled out on a parking area. We were surprised to find a farmer's pasture came clear up to the road!

When we drove into the state from Virginia we saw a sign that said "Welcome to Wild, Wonderful West Virginia" and it certainly is just that. History says the state was completely cut over at one time and then, when they couldn't find anything that most of the land could be used for, they let it grow up to woods again. It's probably the best crop to raise there, and if the trees happen to be hard maple, someone ought to do something with them other than making saw logs.

For more on what went on at the Council meeting, please read on.

'REX' ALWIN HEADS COUNCIL

L. V. "Rex" Alwin, 44, of Mound, Minn., was elected chairman of the North American Maple Syrup Council at the annual meeting held at the Blackwater Falls Lodge near Davis, W. Va., October 28-29. Gordon Brookman of South Dayton, N. Y. was elected vice chairman and Gordon Gowen, Alstead, N.H. was re-elected secretary-treasurer.

Rex Alwin, a graduate of the University of Minnesota with a bachelor's degree in Mechanical Engineering spent 2 years in the Navy as observer and forecaster and still pursues an active interest in meteorology. He worked for Honeywell for 13 years and adapted many of their automatic controls to his sugar bush and syrup processing plant in Mound. His plant is one of the most automated in the country. He is now vice president of Park Engineering Inc., consulting engineers in Minneapolis, a registered mechanical engineer in Minnesota, Wisconsin and Iowa, and a member of the American society of Mechanical Engineers. He has been president of the Minnesota Maple Producers Association since 1967, a delegate to the National Maple Syrup Council off and on since 1964 and a Director of the N.A.M.S.C. since 1971.

Rex has done much experimenting in methods and equipment for sugar production from an improved aerial tubing system to reverse osmosis to remove excess water from maple sap. He is at present compiling data using a recording rain gauge to determine the effects of weather perturbations on sap yields.

Rex and his wife Barbara are both avid conservationists and ecologists. Organic growing produces most of their food at their "Sugar Wood Farm". They raise some hogs and chickens and, with their maple enterprise, pretty much live off the land.

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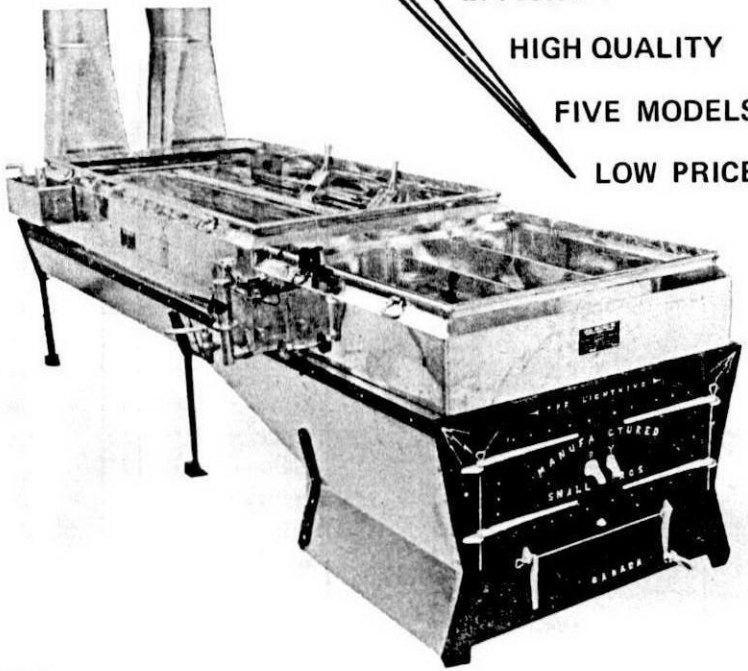

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NEW GRADING TERMINOLOGY

The United States Bureau of Standards, in an attempt to simplify grade names has decided that all products shall use the grade names "U.S. Grade A", "U.S. Grade B", and "U.S. Grade C". The grade "Fancy" or "AA" shall no longer be used. This means what we now call Fancy or, in New York State, Light Amber will have to be called Grade A; New York's Medium Amber or other states' Grade A will have to be called Grade B, and so on.

I've probably got you thoroughly confused now but you can forget it because it just won't work that way. The North American Maple Syrup Council took action on the problem and is making this recommendation to the U. S. Bureau of Standards:

Use the three grade names (U. S. Grade A, B and C) as they have recommended. However, Grade A will be split into three classes. These will be called: Grade A Light Amber, Grade A Medium Amber and Grade A Dark Amber. All requirements of these three grades shall be exactly the same as was before in the top three grades.

The next grade will be U.S. Grade B or Utility. This will be a syrup which is standard density but will not qualify for one of the Grade A classes because of color or flavor or both. It would be used for blending, flavoring or cooking as Grade C used to be. The new Grade C or Unclassified will be a syrup which does not conform to color or flavor or density.

The minimum density will be raised from 65.5 Brix to 66.0 Brix at 68° F. as was reported in the Digest last February.

A similar terminology had been worked out by the International Maple Syrup Institute and Directors of that organization indicated the above names would be acceptable to them. Also, Canadian Delegates of both organizations felt this would be acceptable to the Canadian Government and maple industry.

The U. S. color range for each grade was adjusted slightly to conform to the Canadian color grading standards by the International Maple Syrup Institute and approved by the North American Maple Syrup Council. However, the difference is so slight it will not make the permanent grading sets now in use obsolete, at least for the present time.

Please note that the above change in grading terminology is merely a proposal to the U. S. Bureau of Standards. It has not been adopted yet and will not affect your grading procedure in the coming season.

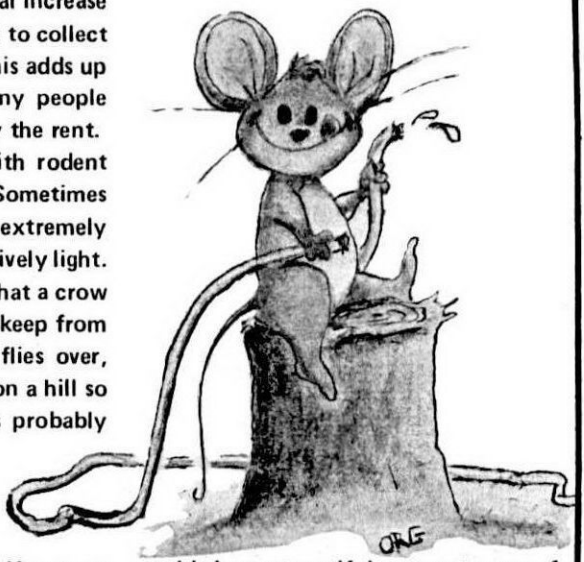
CLAUDE TARDIF
Institute Manager

Mr. D. B. Green, President of the International Maple Syrup Institute, is pleased to announce the appointment of Claude Tardif as Executive Manager of the Institute.

Mr. Tardif is an experienced marketing man with several years of experience in the advertising and marketing of consumer goods. The newly appointed Executive Manager of the Institute is also Vice President of Cogem, Inc., a Montreal marketing research firm, where he has recently been in charge of an extensive marketing research survey on maple syrup in both Canada and the United States. This survey has revealed several most promising opportunities in the marketing of pure maple syrup to the retail, institutional and industrial markets. The maple industry facing these major market expansion opportunities has joined forces under an International Institute grouping producers, processors, equipment manufacturers, major users and university and government services from the Provinces of Quebec and Ontario in Canada and ten American states.

Concerned by the lack of awareness of the distinctive taste of pure maple syrup by too many households in large metropolitan areas outside of the producing regions, the Institute will engage into extensive information and promotional activities in order to have pure maple syrup enjoyed on a regular basis by many more North American households. The Institute will be based at 2809 Terrasse Beaucourt, Longueuil, Quebec J4M-1L2, tel.: (514) 845-9221.

RODENT DAMAGE



Each year there is a gradual increase in the amount of tubing used to collect maple sap. Over the years, this adds up to millions of feet that many people are depending on to help pay the rent.

We've had a problem with rodent damage right from the start. Sometimes in some places it has been extremely serious. Other times it is relatively light. If you live far enough north that a crow has to carry a pack basket to keep from starving to death when he flies over, or if you have a cold bush on a hill so high the stars drag, rodents probably won't bother you much. But if you are located in one of the maple areas where production is better and rodents flourish, as sure as death and taxes you're going to have trouble sooner or later. Most of you have already had it.

In the past, controls have been available that we could buy and use to eliminate the problem. We are no longer allowed to buy and use these controls. We have been over-run with crack pot minorities that mess up our economy and produce nothing or very little to support it. They make so much noise about anything they think might hurt our ecology that it is eliminated, regardless of who is hurt by not being able to use it. They say the wheel that squeaks gets the grease. I guess maple people aren't very good squeakers. But they're gamblers. If some of those people that go clear to Las Vegas to gamble had the guts to really gamble, they ought to try farming.

Fortunately, today we have some wonderful maple research organizations and it is most gratifying to get some of our tax money back. Here's what I would like you to do:

I want each and every one of you in both the United States and Canada to write me a letter stating that you want research work done on rodent control or rodent elimination. Please write on only one side of sheets no larger than 8½" x 11". State your name and address clearly and it will be good if you cite some of your rodent damage experience.

Then I will take your letters to the proper research organization and we will get some results. They are capable and competent and will get the job done if they have our support. They must have our support to get the needed funds for a project like this, so write your letter today.

Thank you and I'll do my part.
Send your letter to:

Robert M. Lamb
Box 368
Bernhards Bay, N.Y. 13028

TUBING vs. BUCKETS: a cost comparison

by Neil K. Huyler
Research Forester, USDA Forest Serv.
Northeastern Forest Experiment Sta.,
South Burlington, Vermont 05401

Which method of maple sap production costs less—buckets or plastic tubing with vacuum pumping? Our studies show that plastic tubing with vacuum pumping costs less.

For two sap seasons (1972 and 73) we studied the total costs involved in maple sap production in operations of various sizes, for both the tubing system with vacuum pumping and the bucket system. We also compared the two collection systems on a cost-per-tap basis to determine if one system has a cost advantage over the other.

THE STUDY METHODS

Field Data Collection

Cost records for sap production were kept on 15 maple syrup operations in Vermont during the 1972 and 73 sap seasons. Of these, 7 were plastic-tubing operations, using either wet or dry vacuum; and 8 were traditional bucket operations. For both collection systems, the size of the operations ranged from approximately 600 taps to 4,200 taps.

Field data were collected in two phases. In phase I, a complete inventory of all equipment used in sap production was made on each sugarbush. In addition, any materials used—paint, fuel, oil, wire, etc.—were recorded and included in the cost.

Phase II of the study consisted of a time study of the labor inputs required. Labor input was classed by specific work activity:

1. Preparation time.—Cleaning and repairing equipment, storage tank preparation, etc.
2. Set-up time.—Installation of mainlines and small tubing lines, tapping, setting spouts, scattering and hanging buckets, etc.
3. Sap-gathering time. — Inspecting buckets, gathering sap, dumping ice

or spoiled sap, etc.

4. Checking time.—Checking the tubing system for leaks and making necessary repairs.
5. Take-down time.—Disassembling the system.
6. Clean-up and storage time.—Cleaning and storing all equipment.

All times were recorded to the nearest ¼ man-hour in each activity.

Cost Development

Four main cost categories were developed for use in analysis of the total cost of sap production:

1. Equipment cost.—The equipment costs for the various sizes of operations were developed by averaging up to three prices (1972) as quoted by various sugarbush equipment suppliers. Annual cost charges for equipment were determined by using a 10-year straight-line depreciation schedule for tubing-system equipment and a 30-year straight-line depreciation schedule for bucket equipment. In addition, a 7-percent interest on investment was charged to both collection systems.
2. Labor cost.—All labor input to the production of sap was charged a flat rate of $2.25 per hour. This included not only the operator and family labor input, but also any hired labor used during the sap season.
3. Material cost.—The materials used in sap production such as paint, wire, coding tags, etc. were charged at actual cost.
4. Land overhead costs.—This is generally not considered a cost of production by most sugar producers. However, taxes must be paid on the land, and there is an economic loss in timber value when a maple tree is tapped. To account for taxes and loss in timber value, a flat rate of 11c per tap (based on average local prevailing rates in Vermont) was charged to the production of sap. The flat-rate charge was used because of the wide variation in local tax rates and differing timber values per acre.

WHAT WE FOUND

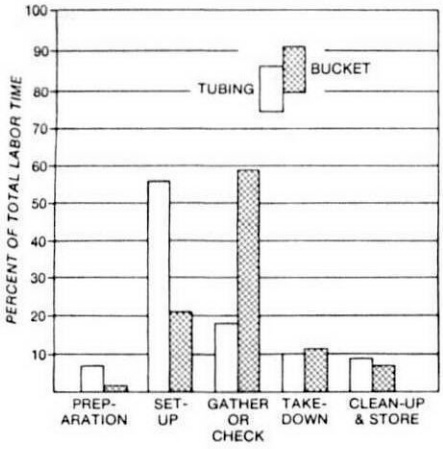
Tubing System Investment Costs Less

All sizes (number of taps) of tubing

Table 2. — Average total costs per tap for tubing-vacuum sap-collection systems

Size	Annual[1/] equipment cost	Labor cost	Material[2/] cost	Rental cost	Total annual cost
Number of taps	Dollars	Dollars	Dollars	Dollars	Dollars
607	0.50	0.36	0.08	0.11	1.05
868	.39	.36	.06	.11	.92
1,939	.31	.36	.04	.11	.82
2,435	.31	.36	.04	.11	.82
3,344	.30	.36	.04	.11	.81
3,625	.30	.36	.03	.11	.80
3,936	.33	.36	.03	.11	.83
Average 2,393	0.35	0.36	0.04	0.11	0.86
Percent of total ——	40.00	42.00	5.00	13.00	100.00

[1/] Includes cost of snowmobile. [2/] Includes operating costs for gas, oil, and maintenance



operations required less investment for equipment than bucket operations (fig. 1). We found that equipment cost per tap for the average size tubing operation (2,400 taps) was $1.91 as compared to $2.54 for the average size bucket operation (2,200 taps).

The investment cost per tap is greatly influenced by the size of the operation or number of taps. The reason is simple: as you increase the number of taps, cost per tap for equipment such as power tappers, vacuum pumps, storage tanks, and hand tools becomes relatively lower as it is averaged over a larger base.

To illustrate: in our study, the smaller tubing operations (2,000 taps or less) had an average investment cost of $2.12 per tap, while the larger operations (2,000 to 4,000 taps) had an average cost of $1.88 per tap. In contrast, the smaller bucket operations (2,000 taps and less) had an average investment cost of $3.12, and the larger bucket operations (2,000 to 4,000 taps) had an average cost of $2.41 per tap.

Requires Less Labor

Producers who used plastic tubing averaged 22 percent less labor input than producers who used buckets. This is important because hiring seasonal labor may be a problem. The total labor time per tap for tubing operations ranged from 7.8 to 12.0 minutes, an average of 9.6 minutes per tap. The labor for bucket operations ranged from 9.7 to 13.9 minutes per tap, an

average of 12.3 minutes.

In terms of labor cost, at an hourly wage rate of $2.25 per man-hour, the installation of one tubing tap would cost 36c compared with 46c for one tap with buckets.

Further, the greatest percentage of labor time required with the bucket system is during sap -flow periods, whereas with a tubing system the greatest percentage of labor time is required in the set-up period before sap flow (fig. 2 and table 1). This indicates that labor for a tubing system is much less time-specific than labor for a bucket system, for which labor must be available when the buckets are ready to empty. Conversely, the set-up time for a tubing system can be spread over a longer time before sap-flow periods. Thus, when sap-flow periods begin, tubing operators have already completed the major labor requirement and can concentrate on sugarhouse activities.

Long-Run Operating Cost

The sugar producer who has already invested in his equipment for collecting sap is concerned with his annual operating cost. For the two systems studied, we found that tubing systems had the least annual operating cost. The total annual cost for tubing operations ranged from $1.05 per tap for a 607-tap operation down to 80c per tap for a 3,625-tap operation. For the computed average size of a tubing operation (2,393 taps), the total annual cost was 86c per tap (table 2).

In contrast, the total annual cost for bucket operations ranged from

Table 1 – Average labor time[1/] for each sap-production work activity

Activity	Tubing-vacuum	Buckets
	Minutes/tap	Minutes/tap
Preparation	0.6	0.2
Set-up	5.4	2.6
Gathering	.0	7.3
Checking Tubing	1.7	.0
Take-down	1.0	1.3
Clean-up and storage	.9	.9
Total	9.6	12.3

[1/] For operations of all sizes.

Table 3. — Average total costs per tap for bucket sap-collection systems

	Size	Annual[1] equipment cost	Labor cost	Material[2] cost	Rental cost	Total annual cost
	Number of taps	Dollars	Dollars	Dollars	Dollars	Dollars
	610	0.35	0.46	0.11	0.11	1.03
	1,022	.34	.46	.08	.11	.98
	1,533	.33	.46	.07	.11	.97
	1,736	.33	.46	.07	.11	.97
	2,003	.26	.46	.07	.11	.90
	2,943	.25	.46	.06	.11	.88
	3,840	.25	.46	.06	.11	.88
	4,296	.23	.46	.05	.11	.85
Average	2,248	0.29	0.46	0.07	0.11	0.93
Percent of total	—	31.00	49.00	8.00	12.00	100.00

[1] Includes cost for tractor and sled. [2] Includes operating costs for gas, oil, and maintenance.

$1.03 per tap for a 610-tap operation down to 85c per tap for a 4,296-tap operation. For the computed average size of bucket operations (2,248 taps), the total annual cost was 93c per tap (table 3).

The principal reason why a tubing system has a total annual cost less than a bucket system is because labor costs less (36c versus 46c). This is the area in sap production where better use of labor can have a substantial effect on the total cost of operation.

Minimum Size of Profitable Operations

For a range of size classes, there is a break-even point at which the income from sugarbushes just covers the costs of operation. For the sugarbushes that we studied, the total annual cost decreased as number of taps increased—up to about 2,900 taps for tubing systems and 3,800 taps for bucket systems. Then the cost remained nearly constant.

We found that an operation of 1,300 taps was the break-even point for tubing systems and 2,200 taps for bucket systems. In both instances we assumed that each tap would yield 10 gallons of sap with a sugar concentration level of 2.5° Brix (Brix value approximates the percentage of sugar solids by weight in maple sap). Thus, operators with more taps should make a profit, and those with fewer taps may be operating at a loss.

The primary reason for the 900-tap spread between the break-even size for tubing systems versus bucket systems is due to savings in labor costs for the tubing systems. This will become the critical factor in sap production as seasonal labor becomes more difficult to find and labor costs increase.

CONCLUSIONS

We have examined and compared the costs of the two principal sap-collection systems being used today. Our results indicate the following:

1. The average initial investment cost for sap-collection equipment is less for a tubing system than for a bucket system ($1.91 per tap versus $2.54 per tap). This is an important consideration for producers who are planning to replace old equipment or for people who are considering going into the business.

2. A tubing system requires less labor time than a bucket system (9.6 minutes per tap versus 12.3 minutes per tap). Also, the greatest concentration of labor for a tubing system comes before sap begins to flow, thus enabling the producer to spend more time at the sugarhouse. For a bucket system most of the labor is required during the sap-flow period.

3. The total annual cost for a tubing system is lower than the cost for a bucket system. This is due primarily to the lower labor cost for a tubing system.

4. Small tubing operations show more profit potential than small bucket operations. The break-even point for tubing systems was 1,300 taps as compared with 2,200 taps for bucket systems, assuming a yield of 10 gallons per tap of 2.5° Brix sap. This will change with sap yield and Brix value, and producers who do not consider interest and depreciation as a cost of production and those who do not charge for family help will have a different break-even point.

5. One other important factor is sap-volume yield per tap. For this study, we recorded annual sap yield for both systems and found that average sap-volume yields for tubing systems were 11.4 gallons of sap per tap as compared with 8.9 gallons for bucket systems—about a 28-percent increase in sap yield per tap for the tubing systems.

It is important that each sugarmaker keep accurate cost records so that areas of high cost can be pinpointed and steps can be taken to reduce these costs. The key for a successful maple operation is to increase the overall efficiency of the operation to keep costs of production under control and to maintain an acceptable margin of profit.

Fig 1.—Investment cost per tap for bucket and tubing-vacuum sap-collection systems.

Fig. 2.—Distribution of sap-production work activities for tubing-vacuum and bucket systems.

VERMONT MAPLERAMA IS A SUCCESS

Gary Sabourin - County Extension Agent Assistant
Raymond T. Foulds, Jr.- Extension Forester, University of Vermont

The 1975 Vermont Maplerama was well attended this year, attracting over 200 people who registered for the two-day event. This famous maple event was held in Addison County on August 8–9. It was hosted by the Addison County Sugar Makers Association and maple producers of the county. Exhibits were displayed by several equipment dealers, the Vermont Sugar Makers Association, the Extension Service, University of Vermont, and the Vermont Maple Industry Council. Visits were made to the sugar houses and bushes of Howard Foster and George Devoid in Salisbury; and of Jed Hall in South Starksboro.

Several veteran Maplerama attenders expressed the opinion that more new information was available at this year's event than had been found at several similar events in the past. A new piston type, chain-drive tapping machine was displayed; three kinds of pre-heaters which increase efficiency of maple syrup production when boiling sap; four different kinds of plastic tubing and fittings; power devices for stirring sugar; improved techniques for washing plastic tubing; and vacuum pumps for moving sap from the tree to the storage tank. Clarence Coons, Extension Forester from Ontario, distributed a new bulletin on sugar bush management.

As in the past, this year's Maplerama attracted people from the far reaches of the maple-producing regions of our country, as well as Canada. Maple enthusiasts present were from Minnesota, Wisconsin, Ohio, New York, Maryland, Connecticut, New Hampshire, Massachusetts, Maine, Vermont, Ontario, Quebec, New Brunswick, and Nova Scotia.

A special addition in connection with the Maplerama was the construction of a 30' by 60' sugar house on the grounds of the Addison County Farm and Home Field Days in New Haven. Many of the commercial maple equipment exhibitors brought their exhibits into the new structure once the exhibit session for the Maplerama was completed.

A roast beef banquet, which was the climax of this year's Maplerama, was held at the site of the Field Days on the first evening. The meal was followed by a brief evening program. A special guest, the Vermont Maple Queen, Mary Gow, shared with the audience her experiences as queen, and commented on the ever-growing maple industry in Vermont. Special celebrities associated with the maple industry in the United States and Canada were introduced and acknowledged by everyone present. People who devoted much hard work and time organizing the Maplerama were also recognized.

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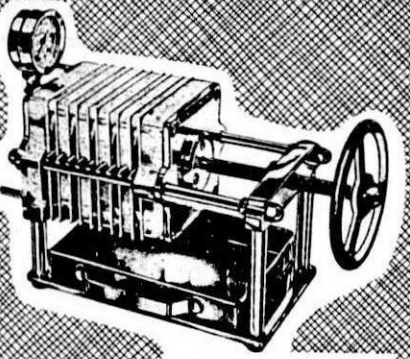

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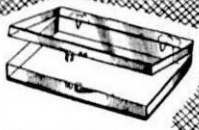
POLETHYLENE LINERS
For Leaky or Rusty Buckets

CANDY CUPS

GOLD FOIL
Pressure Sensitive
NAME STICKERS

Light Weight
Big Capacity
GATHERING PANS



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Plastic Bottles
and Jugs
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of Syrup Cans

Non Toxic Paint
For Buckets and Tanks

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OF EVAPORATORS

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REYNOLDS

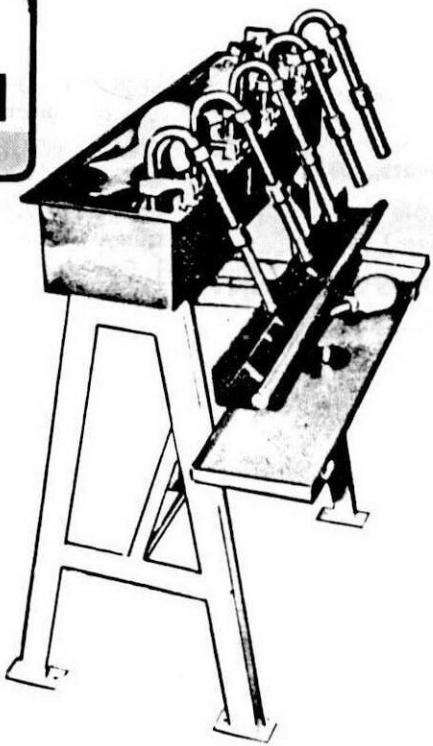
SUGAR BUSH INC.

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

WANT TO CUT DOWN ON TIME & LABOR ?

Here is what You Need

A SIPHON



MASTER MODEL J

Bottle Can Jug Filler

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!

"ARCHIE"

Archie's Sugarbush
Columbus, Ohio

Dear Editor.

My wife, she sez, "Archie, I'm so glad you are always honest, trustworthy, loyal, kind, and truthful. When you always tell the truth people will not dispute your word." I told her I always did, so that is the reason why I can look anyone in the eye.

I remember the year when no one was making syrup, the weather stayed real cold, late. I had some orders to fill so I had to make some syrup. If things warmed up I could make syrup. I figered if I could get passageways through the ground I could pump steam in the passageways which would warm up the ground, melt the snow and make the trees think spring was here and start the sap flowing.

Well, I bought me a ton of fishing worms which I buried throughout the sugarbush. Now, moles like fishing worms, so they started hunting for the worms I buried, I gave them a week to dig the tunnels to find the worms.

Then I turned on the steam.

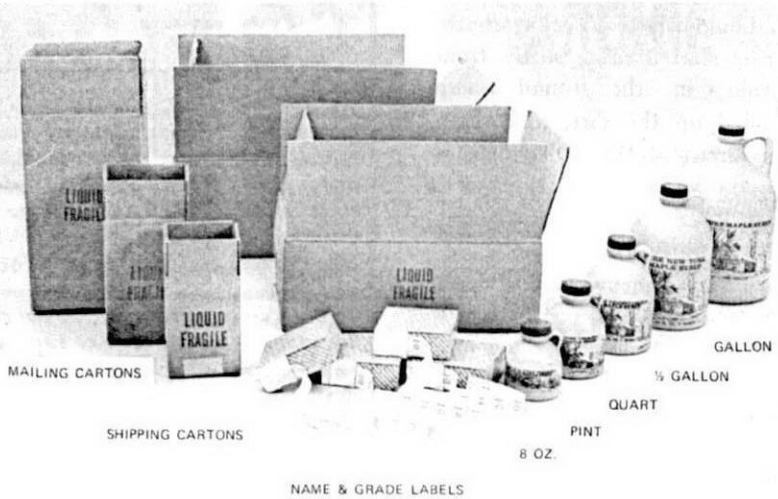
You should have seen the sugarbush. The steam started rising softly from the openings in the ground where moles piled up the dirt, must have been hundreds of them. That steam hung in the woods and got about 4 feet deep. When I sent the guys out to tap the trees, their heads and shoulders were above the steam but they couldn't see their feet. They had one heck of a time tripping over branches and logs on the ground. One little fellow, about 4 feet tall, got lost in the steam and didn't show up for meals for 3 days.

After the buckets got hung the sap began to flow. The steam heated the sap in the buckets and there was instant evaporation. We didn't gather sap that year, we gathered syrup. We took it to the sugar house, heated it and ran it through the filters.

We would have continued the next year but we had a little problem. Because of the steam, the worms wiggled twice as fast, that made the moles dig twice as fast. Soon the entire woods was honeycombed and a wind came along and blew the trees all down. My wife hired an engineer to figer a way to stop it but I couldn't see buying 50 miles of guy wires to hold trees up so we went out of business.

Archie

Classified



PLEASE NOTICE!!!

BACON'S UNBREAKABLE HIGH-DENSITY POLYETHYLENE JUGS are NOT made of Polyvinyl Chloride. The Food & Drug Administration announced plans last August to halt the use of Polyvinyl Chloride in food packaging but this announcement in no way effects the use of High-Density Polyethylene for packaging Milk, Sweet Cider, Drinking Water or Maple Syrup. H.D.P.E., the most used plastic in food packaging has long been approved by the F.D.A.

The Dealers and Associations listed on the following page can supply their customers and members with a complete line of "Bacon Jugs" from 8 oz. to one gallon – Individual Mailing Cartons for pint, quart, half gallon and gallon jugs – Shipping Cartons for 12 8 oz., 12 pint, 12 quart, 6 half-gallon and 4 gallon jugs.

Unbreakable Polyethylene Jugs are printed for Pure New Hampshire, Vermont, New York, Maine, Pennsylvania, Ohio and "all state" Maple Syrup – CUSTOM PRINTING, too.

For the NEW Vermont Maple Sugar Makers Association jug, contact: CLARK BROTHERS, Wells, Vt.
VERMONT SUGAR HOUSE, So Royalton, Vt.

See your dealer or write

BACON'S SUGAR HOUSE

JAFFREY CENTER, NEW HAMPSHIRE 03454

(603) 532-8836

DEALERS & ASSOCIATIONS CARRYING BACON'S JUGS

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Richard Moore, RFD No. 8, Concord, N.H. 03301	(603) 267-8217
R. N. Johnson, Walpole, N.H. 03608	(603) 756-3321
Massachusetts Maple Producers c/o Russell Davenport, Shelburne Falls, Ma. 01370	(413) 625-2866
Lesure Farm, Ashfield, Mass. 01330	(413) 628-3268
Agway, Inc., Box 181, Lyndonville, Vt. 05851	(802) 626-5538
Clark Brothers, Wells, Vt. 05774	(802) 325-3203
The Dakin Farm, Ferrisburg, Vt. 05456	(802) 877-2936
Harry Jorgensen, W. Woodstock, Vt. 05091	(802) 457-2261
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Leader Evaporator Co., St. Albans, Vt. 05478	(802) 524-4966
W. S. Mitchell, Inc., Newport, Vt. 05855	(802) 334-2800
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Vermont Sugar House Exit No. 3, I. 89, South Royalton, Vt. 05068	(802) 763-8809
Justus "Dutch" Asthalter Neversink, N.Y., P.O., Parksville, N.Y. 12768	(914) 292-8569
Frank Barney, Sherman, N. Y. 14781	(716) 761-6071
W. Barry Branon, 31 Tremblay Ave., Plattsburg, N. Y. 12901	(518) 563-1063
Lansing Burdick, 335 East Rd., Stephentown, N.Y. 12168	(518) 733-5591
Campbell's Maple, Smyrna, N. Y. 13464	(607) 627-6653
Charles R. Emerson, RD 1, Alfred Station, N. Y. 14803	(607) 276-6481
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Rt. 77, Bennington, P.O. Strykersville, N. Y. 14145	(716) 591-1766
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John Wiggers & Son, North Clymer, N. Y. 14759	(716) 355-2511
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J. Curtis Dom, P.O. Box 56, Wellersburg, Pa. 15564	(814) 324-4414
Northeastern Pennsylvania Maple Producers Assn. Box 549, Honesdale, Pennsylvania 18431	(717) 689-2353
Potter-Tioga Maple Producers Assn.	(814) 274-8540
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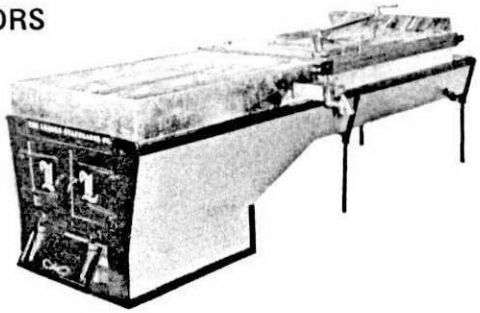
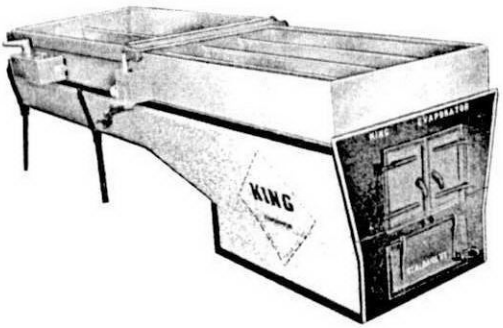
LEADER EVAPORATOR

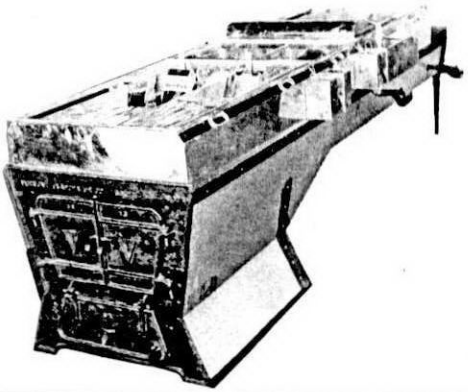
LEADER SPECIAL EVAPORATORS
MONITOR TANKS
WARNER SPOUTS



KING EVAPORATORS
KING TANKS
SOULE SPOUTS



VERMONT EVAPORATORS
VERMONT SPOUTS



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We wish to thank our customers for their cooperation during our recent acquisition of Vermont Evaporator Co.

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PERSONALIZED HANDLING OF EACH ORDER.

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EVAPORATORS – A WIDE RANGE OF –

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802-524-4966 or 802-524-3931

A World of Good Wishes

Bob Lamb

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