NATIONAL MAPLE SYRUP DIGEST

Vol. 14, No. 1

February, 1975

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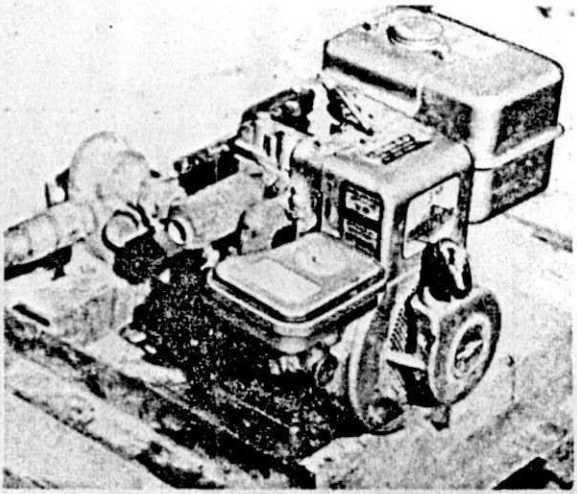

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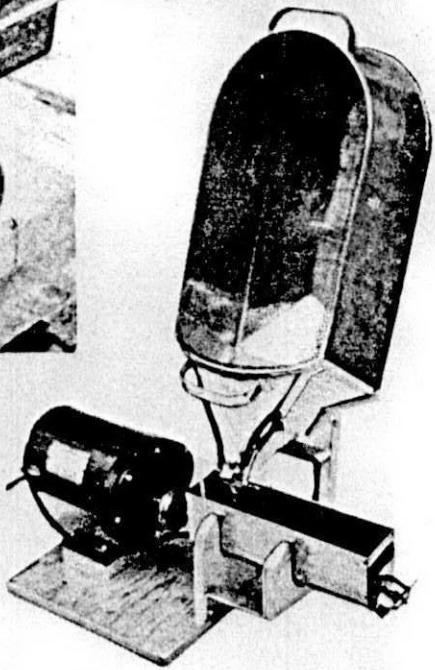

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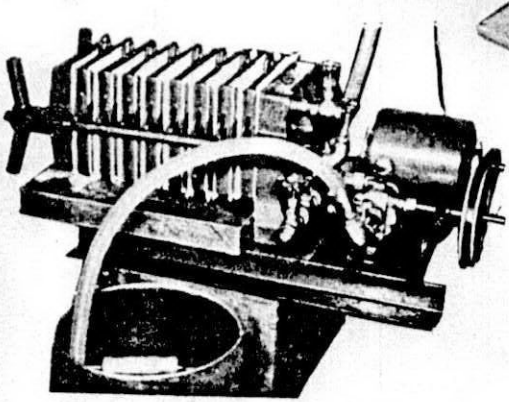
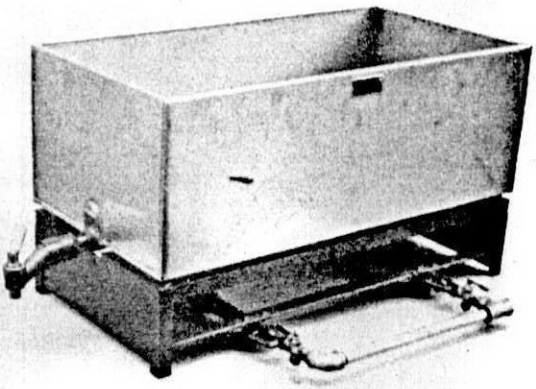


MAPLE SYRUP FILTER PRESS

Takes out all dirt and sugar sand. Electric motor operates a bronze gear pump to push hot syrup thru filter and lift it to any height. Capacity 2 gallons per minute.



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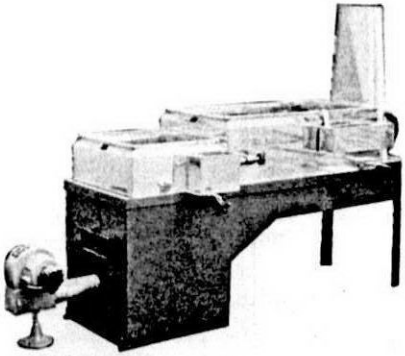
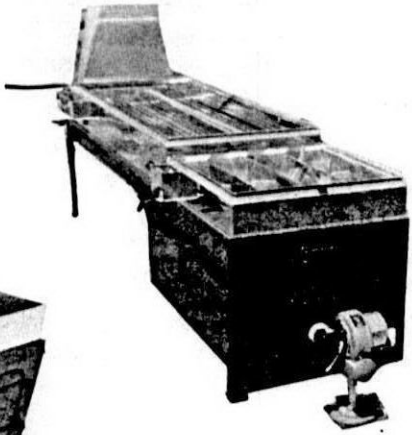
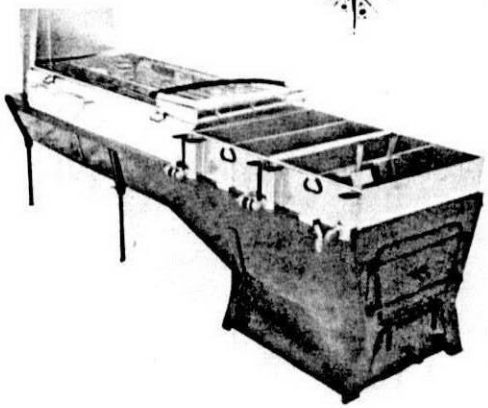


2' x 6' OIL LIGHTNING



4' x 14' OIL LIGHTNING



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COVER PICTURE

"WINTER WONDERLAND"

Editorial

Dark syrup is getting to be a serious problem. I won't go into it because it is explained much better in articles included in this issue along with what is being done right now to correct the situation. What I would like to bring out is this:

With every issue of The Maple Syrup Digest, you are kept informed of what is going on in the maple industry from research developments on how to produce the crop to the disposition of that crop. It is the only publication devoted entirely to that purpose. It is delivered as close as we can get to your door (your mailbox) and you do not even have to pay a subscription fee to receive it.

I still think most producers appreciate this service and are willing to help. The Digest needs your help. Your contributions last year totaled about the same as prior years. Our advertisers paid about two-thirds of our total expenses but rising costs of printing and mailing created a deficit. This was paid by the North American Maple Syrup Council which was re-imbursed by some of the State Maple Producer Associations, but I still think the Digest should be self-supporting.

There is an envelope enclosed in the center of this issue. I hope everyone who appreciates receiving the Digest will use it to send us their contribution. If you do not appreciate what the Digest is doing, you can use the envelope to have your name removed from our mailing list, just don't forget to include your name and address.

I'd like to thank all of you who have contributed in past years and hope you will continue to do so. You are the ones who have kept the Digest going but "you" only amount to about 20% of our readers. Don't you think it's about time the other 80% helped a little?

You probably don't like inserts in magazines any more than I do, so if you use it right now it will be out of your way and done with for another year.

IMPORTANT NOTICE!

The Federal requirements for the minimum density of maple syrup has been raised from 65.5 to 66.0 degrees Brix and is now in effect. This applies to all interstate sales of syrup and intrastate sales if your state has adapted this change. To be on the safe side, simply make your syrup at least 66.0 Brix. You will be selling a better product anyway.

SAP PRICES

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

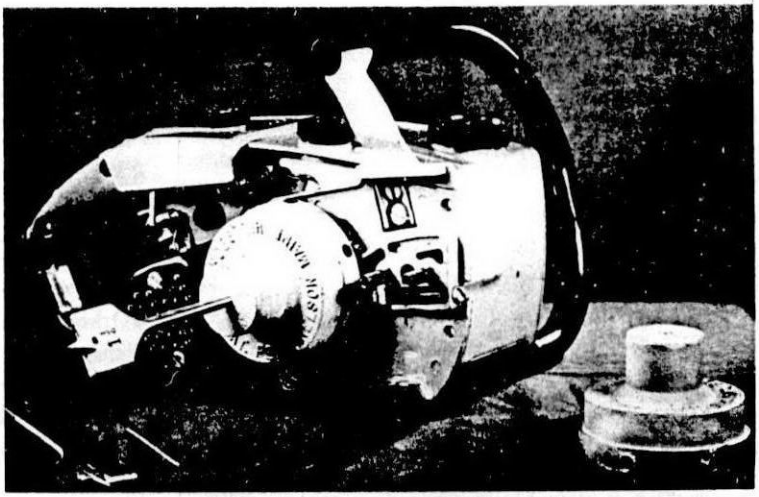
This year this producer does not fore-see any significant increase in sap prices since the major increase in cost of production is in the syrup processing end (fuel, containers, etc.).

For your convenience, we are printing, below, the same chart we printed last year, the only change being a slight increase anticipated in the syrup price.

Year	1972	1973	'74-'75
Retail	9.00	10.00	12.00
Wholesale	6.80	7.90	9.00
Sap Brix	per gal.	per gal.	per gal.
1.5	.023	.027	.029
1.6	.035	.039	.039
1.7	.044	.049	.049
1.8	.052	.057	.058
1.9	.059	.064	.066
2.0	.065	.07	.073
2.1	.070	.075	.079
2.2	.075	.08	.085
2.3	.080	.085	.091
2.4	.085	.09	.097
2.5	.090	.095	.102
2.6	.094	.10	.107
2.7	.098	.105	.112
2.8	.102	.11	.117
2.9	.106	.115	.122
3.0	.110	.12	.127
3.1	.114	.124	.132
3.2	.118	.128	.137
3.3	.122	.132	.142
3.4	.126	.136	.147
3.5	.130	.142	.152
3.6	.134	.146	.157
3.7	.138	.15	.162
3.8	.142	.154	.167
3.9	.145	.158	.172
4.0	.149	.162	.177

E-Z-TACH

DRILLING ATTACHMENT FOR CHAIN SAWS



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  STIHL: 1020 - 021 - 030 - 031 - S-1 (2-5/8"*) - S-2 (2-7/8"*)
  PIONEER: PI-1 (2-5/8"*) - PI-2 (3"*)
  POULAN (LIL JON): PL (2-3/4"*)
  MCCOLLOCH: M-1 (2-7/8"*) - M-2 (3-3/8"*)
  PARTNER
  *O.D. Clutch-size. We can only fit saws that have the drive-sprocket toward the motor. If a saw is not listed be sure to give us make, model and, when possible, the O.D. measurement.

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CROP REPORTS FROM COUNCIL DELEGATES

New Hampshire – Kenneth Bascom

The 1974 maple season opened well before normal with many producers missing all or part of the first run of sap. Cold weather then prevented sap flow until excessively warm weather arrived bringing another run of sap and also encouraging a fast buildup of bacteria, resulting in a rather high proportion of the crop grading B or C. The state's total crop of about 53,000 gals. was near normal. The generally poor sap flow conditions were offset by an open winter with virtually no snow to interfere with tapping and collecting, making it easy for anyone with an inclination to sugar to do so with a minimum of effort.

Most of the crop has been retailed at $11.00 to $13.00 per gal. with the larger producers wholesaling at $9.00 to $10.00 per gal.

Vermont – Bill Clark

The sugaring season was very irregular; March generally too cold, April had good runs after "too warm" spells. Sugar content was fair to good. No fuel shortage but price up 10c to 20c per gal. 10% more producers than in 1973 produced 340,000 gallons.

Price range for grades Fancy and A: Wholesale $9.00 to $10.00; retail at farm $10.00 to $12.00; retail in stores and gift shops $11.50 to $14.00. Bulk prices paid by small buyers: Fancy - 60-70c, A - 55-65c, B - 50-60c, C - 44-45c. Large buyers paid about 5c per pound less.

Spring sales were good, summer sales fair to good, and fall sales were record breaking. Quality bulk syrup should be gone by Christmas, Grade C is drug on market. Producer incentive is high and growing.

Massachusetts – Russ Davenport

The 1974 season was rather odd. We had about every kind of weather imaginable and our producers made record crops—all the way from the poorest on record to the best on record. A few had the highest yield per tap in many years. Others gathered sap only twice. The higher elevations had temperatures too cold until April while the lower orchards ran well from March 15 to April 10.

Average prices for syrup were: gal. - $10.50, ½ gal. - $5.75, quart - $3.50, pint - $2.25, and ½ pint - $1.25. Many producers are finding great value in roadside fruit and vegetable stands as outlets for their products. Never has the demand been so great for syrup and sugar.

Ontario – Ron Shaw

Most producers tapped in early March but little syrup was made until the last few days of March and the first week of April. Then it didn't freeze hard enough to hold the quality. A lot of producers made half their crop in April but the quality was poor. The crop varied over Ontario but averaged about 60%. The Dominion Bureau of Statistics estimated 146,000 Imp. Gal. of syrup were made.

Vacuum pumps were reported to have saved a lot of crops. Fuel oil cost 26–29c per Imp. gal. Equipment, supplies and containers were not a problem if you had ordered early.

Syrup was selling from $10.50 to $14.00 per Imp. gal. The only large bulk buyer paid 52c a lb. for AA and

49c for A but they got more C and D at 42c to 44c.

New York — Gordon Brookman

Production in New York was spotty, from 60 to 90% of normal, up about 45% from 1973. We had a prolonged cold spell in March which held up production and shortened the season. We had an increase in producers, but are still using only about 8% of the tappable maple trees.

In spite of rising costs of production some producers are still reluctant to ask a fair price for their product. I would say the average price of syrup, retail, was $12.00 a gallon, with smaller containers priced in proportion. There was an excellent demand, with little or no resistance to price.

The Farm Bureau Maple Marketing Coop paid the following prices for bulk syrup: Fancy or AA - 60c, A - 55c, B - 50c, and C - 44c. The table grades were no problem but grade C was. We handled more than ever before and from areas we hadn't received from before. I'm really concerned about the future of dark maple syrup.

Michigan — Floyd Moore

Production in some areas was fair, others very bad. Weather was cold at first, then summer came after the first runs. Temperature in the 70's. Snow was not a problem. Oil was high in price; I paid 36.7c per gallon.

The retail price of syrup was up in all areas: gal. - $12.50 to $14.00, quart - $3.50 to $5.50 depending on area of the state. Quality was good at the first of the season, low at the end.

Michigan was 3rd in the nation in production with 98,000 gal.

Wisconsin — Adin Reynolds

The season started earlier than usual and producers that were ready in February enjoyed an excellent crop. Northern sections did not fare as well, but the total yield added up to a normal season, and quality was good, Gallons sold for $12.00, half-gallons for $6.75, Quarts $3.50 to $4.00. There was little surplus of table grades left for fall sales.

Wisconsin imports more syrup than it produces. Demand seemed to be at an all time high. Commercial grades are another story. Present inventory on this syrup is higher than normal.

The production growth picture in the state is not too encouraging. Many back-yard operations are springing up with a few new and very modern installations appearing, but many older producers are dropping out keeping the statistical figures about the same.

Ohio — Ture Johnson

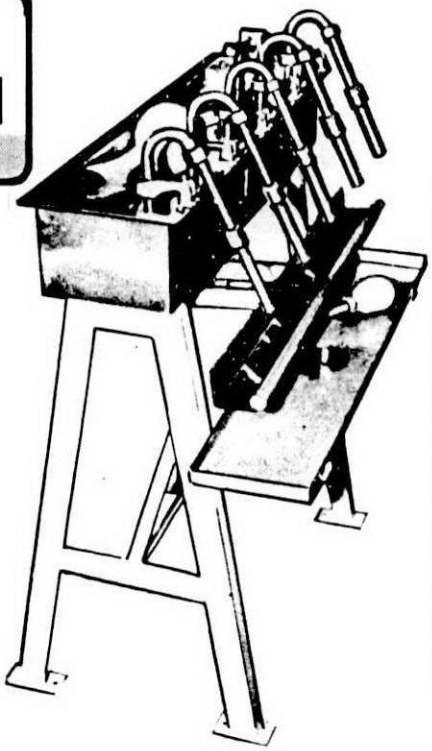
Early in March, many producers thought this year would be a repeat of 1973. The temperatures held up in the 60's and didn't go down far enough at night. However, Mother Nature began cooperating later and we produced an above normal crop for the state.

Bulk syrup brought up to 70c per pound for the fancy grade. Most of our syrup is sold retail, with some of the darker grades sold commercially. Our retail price was increased a dollar a gallon to $10.50. One of our larger outlets increased his price to $11.50 after the festival and we expect this will be the starting price for 1975.

WANT TO CUT DOWN ON TIME & LABOR ?

Here is what You Need

A SIPHON



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OUR CATALOG SHOWS LOTS OF THINGS!

REMOVAL OF BUDDY FLAVOR FROM MAPLE SIRUP

Claude H. Hills and R. A. Bell, Jr.
Eastern Regional Research Center[1]

Maple sap produced late in the season, when the buds are developing, produces sirup with an off-odor and off-flavor described as "buddy". This sirup is unpalatable and dark in color. The appearance of buddy sap signals the end of the maple sirup season. Some trees and some locations may produce buddy sap earlier than the general average and thus contaminate otherwise good sap. Thus an inexpensive process to renovate buddy maple sirup would enable a sirup producer to increase his production by operating later in the season and still produce sirup that is marketable.

CAUSE OF BUDDY FLAVOR

One of the significant physiological changes that occurs as the trees burst into bud is a marked increase in the nitrogen content of the sap. Holgate (1) observed that the total nitrogen content of normal sap was only 1.7 to 8.4 parts per million (ppm) and that of buddy sap was 35 to 82 ppm. This represents a 10 to 20-fold increase. He observed that buddy flavor appeared when the total nitrogen reached 20 ppm. More recent investigations by Pollard and Sproston (2) and by Bishop (3) indicate that most of the nitrogen in maple sap is in the form of amino acids.

Maple sap also contains sucrose and small quantities of malic acid. When mixtures of amino acids, sugars and organic acids are subjected to prolonged heating they often give products dark brown in color and with strong aromas and flavors. Thus there is good circumstantial evidence that the sudden increase in amino acids in buddy sap is responsible for the objectionable buddy odor and taste.

FERMENTATION PROCESS

In 1961 Willits and coworkers (4) developed a method for improving the color and flavor of buddy maple sirup by fermentation with *Pseudomonas geniculata*. This microorganism removes most of the amino acids from solution converting them to insoluble cellular proteins. Between 1961 and 1965 this process was used successfully on a pilot-plant scale on both buddy sap and buddy sirup. However, this process never achieved commercial adoption. Kissinger (5) reported recently that the fermentation process is so complex that the small-scale sirup producer would not have the proper equipment nor the trained personnel required.

NEW PROCESS

At the October 1974 Maple Conference we reported some preliminary studies using a new approach to this problem. In the reported process the buddy odor and taste materials are removed from the sirup by ion-exchange resins. The principle is the same as that used in some water softeners. The sap or sirup is trickled through a column of ion-exchange resin which removes cations, including amino acids. When the resin becomes saturated, the process is stopped, the resin is regenerated, and a new cycle begun. The resin can be regenerated and used over and over.

Several samples of buddy sap were run through the ion-exchange column and then boiled down to sirup. In all cases the sirup was free of the typical buddy odor and taste. We next tried this process on buddy sirup. It was

necessary to dilute the sirup with an equal volume of water so that the viscosity and density were suitable for passage through the column. On reconcentrating by boiling to 66° Brix, the sirup had a typical maple flavor and was free of any buddy odor or taste.

We recommend that this process be used on sirup rather than on sap. Maple sap is too dilute to be hauled and treated economically. Also, the buddy sap season lasts only a few days in any one location. On the other hand, buddy sirup can be stored and shipped to one central location. It could be renovated over a period of months, after the rush of the regular maple sirup season is over.

COLOR

An unexpected bonus from this process was a 50 to 60% reduction in brown color of the treated sirup. Thus a typical buddy sirup from the 1974 season was upgraded on the basis of color from "unclassified" to "Grade A". This raises a question regarding compliance with some state laws which prohibit "bleaching" of sirups. This is a matter of interpretation. The Federal Food and Drug Administration has approved the general use of ion-exchange resins in food manufacture. It does not consider ion-exchange resins to be "bleaching" agents. Some states, but not all, have accepted this interpretation. It would be advisable to consult both Federal and State food regulatory agencies before attempting to sell maple sirup treated by the ion-exchange process.

PLANS

We hope to obtain additional samples of buddy sirup during the 1975 season. We also plan to construct a portable pilot-scale unit capable of treating about 30 gallons of sirup per hour. A preliminary cost estimate indicates that we should be able to renovate buddy maple sirup for less than $1.00 per gallon.

---

[1] Agricultural Research Service, U. S. Department of Agriculture.

(1) Holgate, K. C. Changes in the composition of maple sap during the tapping season. N.Y. (State) Agr. Expt. Sta. Bull. No. 742 (1950).

(2) Pollard, J. K., Jr. and Sproston, T. Nitrogenous constituents of sap exuded from the sapwood of Acer Saccharum. Plant Physiol. 29 (4): 360-364 (1954).

(3) Bishop, R. Analysis and determination of organic nitrogen with particular reference to maple sap. Senior Thesis, Bates college, Lewiston, Maine. March 29, 1962.

(4) Willits, C.O. Frank, H.A., and Bell, R. A. Maple Sirup. XIX. Flavor and color through controlled fermentation of maple sap. Food Technol. 15: 473-474 (1961).

(5) Kissinger, J. C. Buddy sap fermentation – A complex process. National Maple Syrup Digest 12 (3): 6-8 (1973).

TEST RESULTS OF A MAPLE SAP PREHEATER AND A MODIFIED OIL BURNER ARCH WITH WOOD CHIPS

Lawrence D. Garrett, U.S.D.A. For. Ser.
Howard Duchacek, Frederick M. Laing,
James W. Marvin, Univ. of Vermont

Personnel at the University of Vermont Proctor Maple Research Farm in cooperation with the Northeastern Forest Experiment Station are conducting in-depth experiments with conventional and new maple processing equipment. This brief report outlines preliminary results on sap preheater efficiency, and the feasibility of modifying conventional oil burning arches for the use of wood chips.

THE MAPLE SAP PREHEATER

The Waterloo Preheater, as developed in Ontario, Canada and reported by Professor G. D. Raithby (Maple Syrup Digest, Feb., 1974), was tested at the Proctor Laboratory during the 1974 sugar season. Elaborate electronic equipment and instrumentation was utilized in monitoring fuel flow, heat transfer, and sap flow.

The preheater consists of a hood with 35 feet of 1-inch copper tubing fixed to the inside surface. The hood is mounted on the evaporator flue pan with the tubing connected between the incoming sap line and the regulator box. The entire tube bundle is exposed to the steam evaporated from the pan. The condensed liquid is caught in a tray under the coils and drained to a storage tank, to be used for washing equipment or other special purposes.

TEST EVAPORATORS

Two identical 4' x 10' arches with 4' x 6' flue pans and 4' x 4' syrup pans were tested at identical times using identical sap from the same storage tanks. They differed only in the presence of a preheater in one unit.

INCREASED EFFICIENCY WITH PREHEATER

The cold sap flow of 130 gallons per hour was raised to 197°F. by the preheater, and the sap flow, syrup production, and efficiency ratio increase was a good 15½ percent over the standard open pan unit. Instruments monitored fuel use by weight, sap by flowmeter, stack gas chemical composition by absorption techniques, and syrup production by weighing. The sap to syrup brix was measured by hydrometer and also by refractometer at 10 locations along the path in the pans. Condensate was also weighed to provide an additional means of calculating the the heat transferred in the preheater.

An analysis of several areas of heat transfer in the pans showed that a large portion of heat (about 50 percent) was transferred in the first half of the flue pan and another 30 percent was transferred in the first half of the syrup pan.

A review of heat transfer literature indicates that boiling heat transfer decreases greatly as viscosity and surface tension increases. Therefore, transfer in the last half of the syrup pan was limited to about 2 percent of the total heat transfer. This seems to indicate that the practice of drawing 50° to 60° Brix sap and finishing separately allows a more continuous flow of the syrup, and should also allow better control of the finished product.

Heat balances from several tests revealed that heat loss to high tempera-

ture stack gases constituted 14 to 20 percent of the total energy loss. In addition, 7 percent loss occurred to heating and superheating water vapor formed by the combustion of hydrogen in the fuel. Radiation losses from the outside of the arch were about 3 percent, and a minor loss (0.27) was due to heating moisture in the air supplied for combustion. It was observed that control of stack outlet and burner air adjustment could produce decreases in stack gas loss of 3 to 5 percent and a corresponding increase in syrup production.

A cost analysis of the preheater as a capital investment reveals positive returns for the producer. A typical maple producer with 2000 to 3000 taps could expect to realize a 10 to 12 percent increase in net profit (before taxes) when taking full benefit of the increased productive capacity generated by the preheater. Size of operation, cost of preheater selected, and type and cost of fuel used are some of the variables that will determine the net benefit realized.

The interplay of quality control, economics, heat transfer rate, viscosity, surface tension, flow velocity, etc., in maple processing are very complicated. Design improvements such as the above mentioned preheater and the following wood chip system must be made with a combined understanding of all the basic elements, coupled with analytical and experimental research.

THE WOOD CHIP FUEL SYSTEM

A feasibility study for the use of wood chips as an alternate fuel was carried out in a modified 4' x 12' arch formerly fired with 2 6-gallon per hour oil burners. A grate surface, 3/4 the size of the original firebox floor, was installed some 6 inches off the firebox floor. The grate was covered with 4" x 8" firebrick spaced 3/8" from adjacent brick and each drilled with 3 to 4 1/2" holes to allow better air flow through the grate. A slot 6" high and 24" wide was cut in the front end of the firebox for a chip fuel chute, which takes the chips from an auger conveyer. The chute, which was fed by an auger system, distributed the chips on the grate. Stack draft was maintained at a level normally used with oil burners. Mixed hard and soft wood chips of about 1/4" x 1" x 2" were fed to the evaporator at various rates and moisture contents.

PRELIMINARY RESULTS

Dry wood chips of 5 percent moisture content burned at 250 pounds per hour produced an excellent fire and good boil of water. Wood chips of 35 percent moisture content fired at 300 pounds per hour produced a very good fire and slightly less boil than 5 percent chips. Wood chips of 38 percent moisture content fed at 212 pounds per hour produced a good fire and boil, with 4 gallons of oil per hour used to aid combustion. Chips of 44 percent moisture content were fired at 180 pounds per hour, assisted by 6 gallons of oil per hour. This combination produced a fair fire and boil.

The compared efficiency and economics of 300 pounds per hour (35 percent moisture content) chip fuel, as versus 12 gallons per hour of fuel oil reveals that on the basis of fuel costs alone, the wood chip investigation warrants more in-depth study.

The Proctor Research Laboratory and the Northeastern Forest Experiment Station are continuing the above research in a planned 4-year program of processing and quality control studies of maple processing equipment.

FORTHCOMING MAPLE PROD

QUEBEC – An International Maple Products Institute is to be set up in the near future. This institute will be composed of persons concerned with maple syrup production in Canada and the United States and will deal with marketing problems and seek for new outlets for maple products.

The institute is the outcome of a meeting held in Montreal on November 18th attended by nearly 60 representatives of maple syrup producers and processors and the governments concerned.

The meeting, organized by the Marketing Division of the Quebec Department of Agriculture, was in a sense a world "first". Its aim was to focus the efforts of all those involved, with a view to better planning of maple products marketing.

CREATION OF INTERNATIONAL UCTS INSTITUTE

Those attending the meeting therefore considered how such planning should be undertaken and they entrusted the preparation of the International Institute's maple products programme to a committee composed of five Canadian and five American members. In doing so, they empowered the forthcoming institute to consider problems of marketing on a North American scale and also of finding new markets for maple products.

Although limited geographically to north-eastern North America, maple syrup production faces numerous marketing problems owing to the fact that those concerned are scattered; each state and even each producer mostly sees to the sale of its or his own products.

This international body will also be responsible for regulating the stocks of syrup, which differ widely seasonally as regards quality and quantity, and

also for finding new outlets for maple products of inferior quality.

The meeting on November 18th was chaired by Mr. Jean-Pierre Potvin, maple products specialist with the Quebec Department of Agriculture's Marketing Division. The chief speaker was Mr. Lawrence D. Garrett, economist in charge of maple products marketing at Northeastern Forest Experiment Station, Burlington, a U. S. federal government establishment.

CHAINSAW TAPPING BIT MODIFICATIONS

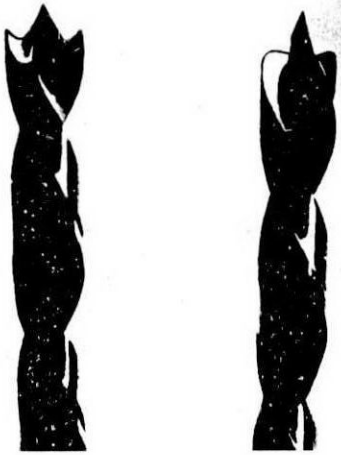
Lewis J. Staats, Forest Technician
Heaven Hill Experimental Sugar Bush
Lake Placid, N. Y.

There are now several models of tapping attachments for chain saws for maple producers to choose from.

A drill bit in a tapping attachment turns at speeds up to 6,000 RPM. At these high speeds during drilling the taphole, the bit must cut and penetrate easily or otherwise scorching may occur which will reduce sapflow. Most tapping attachments, when affixed on the chainsaw, turn counter-clockwise thus requiring a left-handed drill. Some left-handed drill bits available are not necessarily designed for the job of tapping, and some modification is desirable for satisfactory results.

For the producers using a left-handed bit, as in photo, which is furnished by at least one chain saw adapter manufacturer[1] and one major tubing distributer[2], two modifications are necessary.

First, and most important, the two cutting faces at either side of the point should be filed to give more of a cutting



angle (note bit on right). This can be done by using a standard 7/32 round chainsaw file on either side of the point, filing the back side of the cutting face away from the actual cutting edge. The filing should be done at approximately a 45 degree angle. Keep filing until the cutting face or groove meets the cutting edge. This increase in the cutting angle gives ease in tapping effort. Both cutting faces should be at the same angle.

Secondly, the cutting edges running along the drill shaft should be dulled or dubbed to prevent possible oval tapholes while drill bit is in the taphole. This can be done by running a small flat file on these cutting edges starting one inch from the point, leaving an inch of cutting edge near the point where a sharp edge is an advantage. File just enough to remove the sharp edge on the drill shank.

With these modifications applied, this drill bit can be used to make round, leak-proof tapholes with speed and ease.

[1] Len's Sharp Shop, Franklinville, N. Y.
[2] R. M. Lamb, Liverpool, N. Y.

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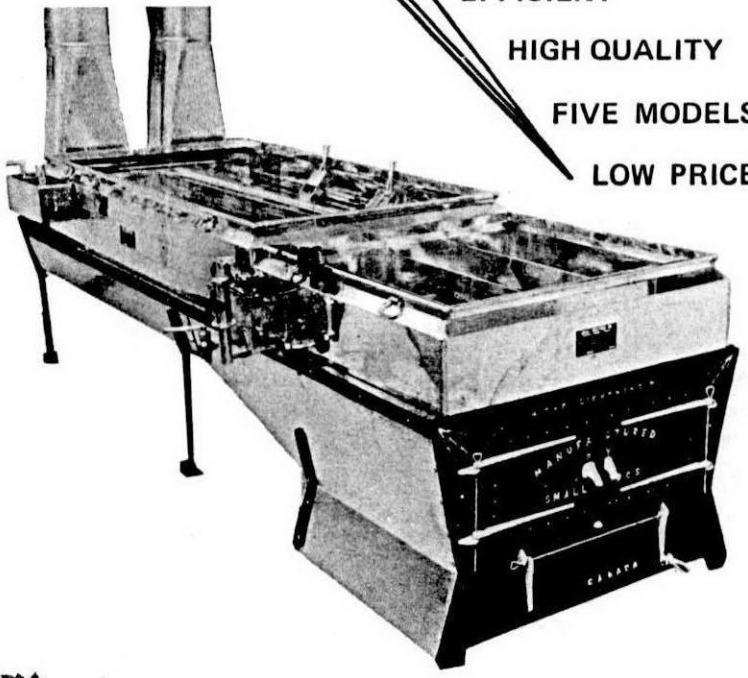

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A WORD FROM WISCONSIN

Reading the Digest this last year brought to my attention some "Maple Operations", that though apparently discontinued, did employ some terrific ingenuity. These articles I refer to were written in Ohio, and if it were not for my deep respect for our Ohio delegate, Mr. Ture Johnson, I would be somewhat inclined to doubt the veracity of the author. But knowing that Ture would not tolerate any of his subjects submitting any prevarications, we must presume these articles to be factual, and thereby deserve recognition, followed up with dedicated research into the matter of why these fantastic operations did not survive. Men with such experience, imagination and talent should certainly command a position on our Maple Industry research staffs. Now trusting that proper attention will be given to this matter, I wish to point out other areas of research action that should be seriously considered.

As I talk with various syrup makers throughout the Maple Belt, one thing always is noticeable. If the subject of syrup grades is mentioned, I am always assured that this man makes only "Grade A" or "Fancy" syrup, no dark syrup. The dark syrup always comes from his neighbors, or over in the next county, or another state. So he has no concern about the marketing of this dark syrup. From a famous quote, "Let me say this", you fellows who make only "Fancy" grade syrup sure must have a hell of a lot of neighbors. Whether you admit it or not, somebody makes a lot of dark syrup, and unless you are downright careless or unsanitary, there is nothing so wrong with making some of the darker grades. The biggest markets today are for this type syrup, and this has always been true. This kind of syrup generally carries a stronger flavor, and flavor is exactly what you are selling, whether mild or strong.

Now most of the "Grade A" or better syrups are finding a market, but supposing all of the syrup now made suddenly was "Grade A" or "Fancy". Would you find a ready market for ten times as much syrup as you are now selling? Remember too, those neighbors will now be selling the same kind of syrup that you are, and will be competing in the same markets.

The point that I am trying to make, is that we are doing pretty well with marketing the better grades, but we are ignoring the importance of dark syrup markets. Prior to world war two, the tobacco companies provided a sizeable market for dark syrup, but this market disappeared during and following the war.

The blended syrup makers seemed to enter the picture at this point, and we have depended on this market ever since, but no one has shown any appreciation for this market. It was only looked upon as a dumping station or relief market, and as warning signals appeared, that this market was in

jeopardy, our industry just sat by and did nothing. The most popular blend started out years ago with a 25% Maple content. We have watched the Maple percentage drop to 15%, then to 10%, to 6%, and now down to 3%. Another major brand has just dropped from 5% to 3%. Still another well-known brand has dropped the Maple percentage to zero, and is using imitation flavor only. The Maple Industry has watched all this happening without one word of protest, no sign of fighting, and no effort to retain these disappearing markets.

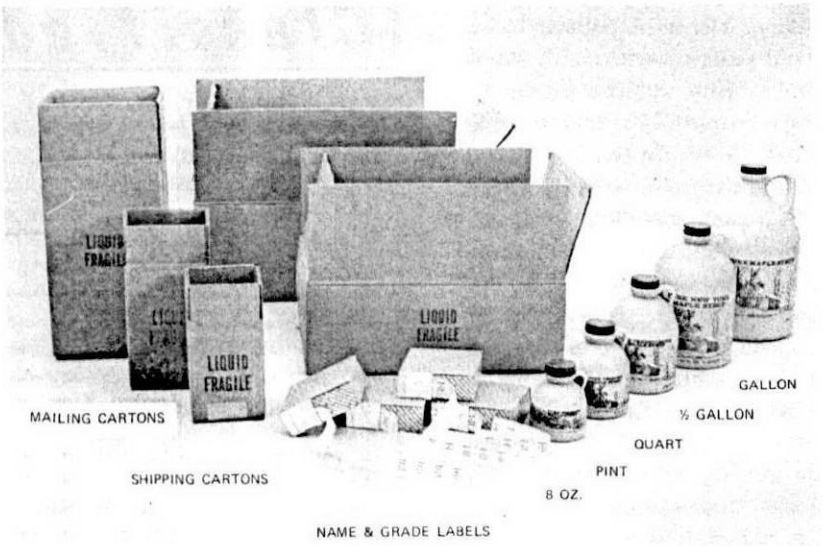
With all respect to the research people and their accomplishments, I feel that marketing is more important than many of the subjects that were and are getting so much research attention.

We can be shown how to improve our methods of production, step up efficiency and produce a better product, but we can have a train load of this syrup, and without a market for it, it isn't worth a damn to anybody.

So I hereby propose some concerted efforts in the direction of trying to hold present markets for all grades of Maple Syrup, and more important, working to secure new markets. There are so many possibilities in this direction, plus the fact that there are thousands of new mouths to feed each day, and more money to buy food and live better than at any time in history.

Adin Reynolds

Classified



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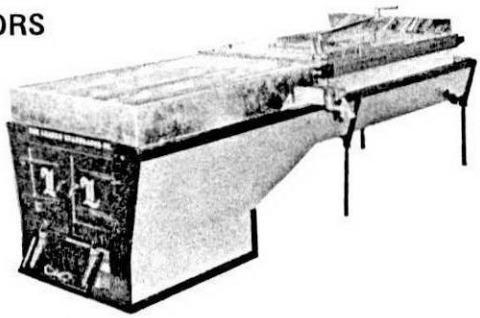

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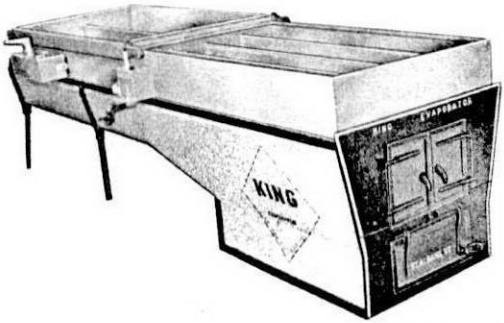

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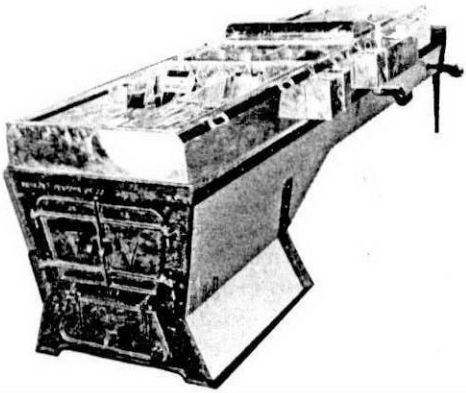

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