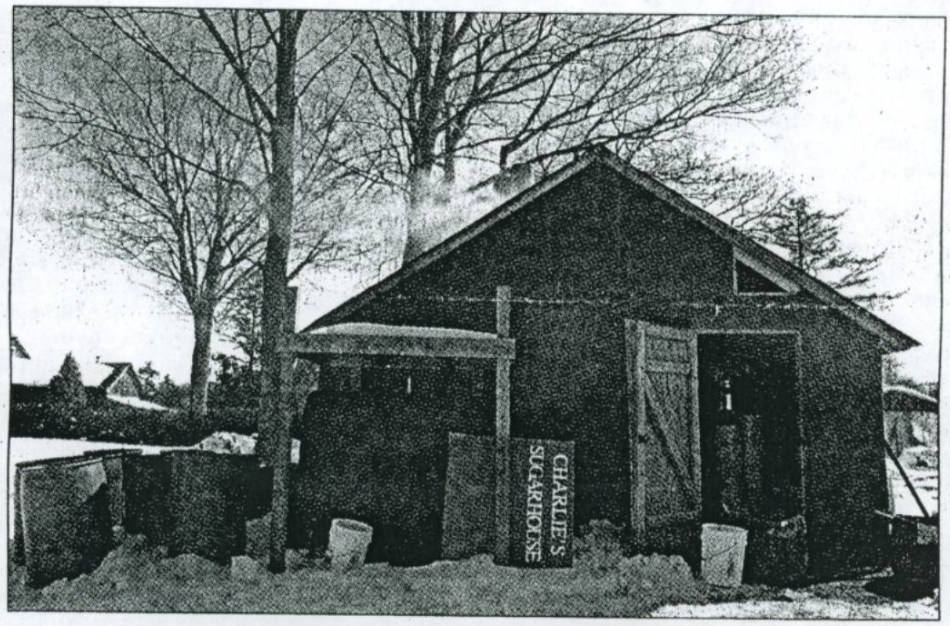
: Charlie Chase, a Coventry farmer, has been making maple syrup for many years, tapping trees in the yards of welcoming neighbors, who a bottle of syrup in return for their generosity. Charlie's Sugarhouse, below, is where Chase boils the sap and transforms it into syrup.



COVENTRY

CHARLIE CHASE has built a maple-syrup business on the generosity of others.

Each winter, he harvests sap from local maple trees and trucks it back to his little red sugarhouse, in western Coventry. There, he stands over a steamy syrup evaporator, boiling the thin, clear sap into a sugary amber liquid.

Every ounce of Chase's sap is donated. People throughout northern Rhode Island let him tap into their maple trees and carry off some sap, simply because he asks them. In return, Chase offers a bottle of maple syrup.

Chase finds it perfectly natural to arrive on a stranger's doorstep, five-gallon pail in hand, and explain his need for maple sap. Repeat donors expect to see Chase's pickup pull into their drive-

SEE **MAPLE, C 2**

Maple

Continued from Page C 1

ways each January, when it comes time to drill holes into maple trunks and tack up collection buckets. He returns, without fail, every winter.

After two decades in business, though, Chase must knock on more doors than he used to. In the early 1980s, he could produce 50 gallons of syrup each season using trees within six miles of his farm. But that was before he got serious. Now, Chase's production has increased six-fold, and he drives 20 miles — into Foster, Glocester, Scituate and even Smithfield — to collect the sap he needs from nearly 1,000 trees. He pushes farther northward with each passing winter.

"When we sell out of syrup," Chase says, "the only way to expand is to find more trees to tap."

CHASE HAS a radar for maples. He finds them almost subconsciously, spotting a gleam of light bark against a field of black-trunked oaks. His next step is to search the nearby property for a house, where he might be lucky enough to find and petition the tree's owner.

Over the years, Chase, 41, has learned a few tricks for finding maple groves. He hunts for houses that look 100 to 200 years old, knowing that the country homeowners of old planted maple trees as a natural source of sugar. He also knows that those original trees will have reproduced.

"A lot of old houses you find, you're going to find a monster sugar maple tree," Chase says. "And where you're going to find one sugar maple tree, you're bound to find 20 or 30."

Chase recently put a high-tech spin on his maple quest. He now draws sap from a tree and uses a refractometer to determine the sap's sugar content. Sap with a higher concentration of sugar requires less boiling to turn it into syrup, he says, and yields a larger amount of the final product. It's the most desirable and the best for business.

Chase needs 40 gallons of typical maple sap, which has a 2 percent sugar content, to make one gallon of boiled-down syrup. Using his new technology, he's seeking trees with 4 percent sugar in their sap, or even 5 percent. A 10 percent tree, while a long shot, would be ideal.

"I'm out looking for the Holy Grail of maple trees," Chase says.

IN THE HUMBLE wooden sugarhouse, tucked around a sharp curve on Waterman Hill Road, Chase turns his sap into maple syrup. Frothy sap boils impatiently inside the gas-fired metal evaporator, forming unruly peaks and roiling wavelets as it reduces and thickens. Clouds of sweet-smelling vapor waft through the sugarhouse's roof; beneath them, the sap progresses into amber.

Chase has worked in the one-room sugarhouse every March, the month that's considered maple sugar season, since he built the house, in 1994. He used to spend some of that time tending the logs that fed a wood-fired evaporator, but now he and his wife, Sarah, operate only the gas machine. It's faster and requires less attention.

The sugarhouse has an earthy, neighborhood feel. Laminated newspaper photographs, showing Chase at work in 1987, hang on the uninsulated walls. Several versions of Chase's business sign — separate slabs of painted wood that read "Charlie's" and "Sugarhouse" — rest on barrels outside. Some pieces are hanging up, others lie on their sides.

On a typical day, a few passersby duck through the sugarhouse's open front door to pick up $2 and $5 bottles of Chase's "Rhode Island Maple Syrup." They pay him in cash — no plastic — rather than buy the syrup from Eastside Marketplace, Food Chalet or the IGA. The sugarhouse has also become a mecca for local schoolchildren, who take field trips on cold weekday mornings to watch the evaporator boil and taste the difference between sap and syrup.

JOURNAL PHOTO/CONNIE GROSCH

SWEET SMELL OF SUCCESS: Charlie Chase boils the sap collected from maple trees in what is called the "lightning evaporator" in his sugarhouse. This year, sap started to run, then froze in the buckets, so he boils the sap "ice cubes." It takes 40 gallons of maple sap to make a gallon of syrup.

A few maple trees next to the sugarhouse have been tapped for their sap, and wear the plastic buckets to prove it. But these trees are more for display, to show children what the drilled hole and attached hose look like, than for sap production. The real source of Chase's livelihood remains off site.

Chase hopes to produce some sap on the grounds of his farm within the next decade. With a grant from the U.S. Department of Agriculture, he has planted a high-density maple grove on one acre he owns.

The 600-tree grove is an experimental venture, one that challenges time-tested theories about drilling for sap. Conventional wisdom says maple trees need to grow for 40 years until they're large enough and strong enough to be tapped. But Chase is one of a handful of farmers in New England who will try to tap them three decades earlier.

Chase is pretty sure he can get at least a gallon of sap from a young maple, even if the tapping process does damage the tree. The trees he taps early will probably wither and die over time, but he'll allow their untapped neighbors to live to their full 40 years. The remaining trees should create a self-sustaining maple grove that Chase can return to each year, just as he does with strangers' trees in the neighborhood.

It's the experimenter in Chase, along with the businessman, that pushed him to develop the stand of maples. He has talked to researchers at the University of Vermont's Proctor Maple Research Center about the science of sap, and he welcomes the USDA representatives who arrive on occasion to monitor his trees. In a decade or so, he'll write a report on his findings.

By then, Chase could be tapping trees in his own back yard.

EVEN IF the experiment works, Chase won't quit collecting sap from nearby maple tree owners. Part of the reason, he says, is competition. Another Rhode Island syrup producer lives and works to the south of Chase's farm, in rural Exeter, and could expand into Coventry and beyond if Chase abandoned his trees there.

But asking permission for sap has become Chase's tradition. He cultivated a brilliant garden of irises in a similar way, spontaneously approaching local residents and requesting one or two of their summer blooms. Quiet and unassuming, often clad modestly in boots and a parka, Chase has become proficient at borrowing his neighbors' sap. He's good at it.

It's his way.