Maple Rental Rates

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Acer Series: Maple Forest Business Development

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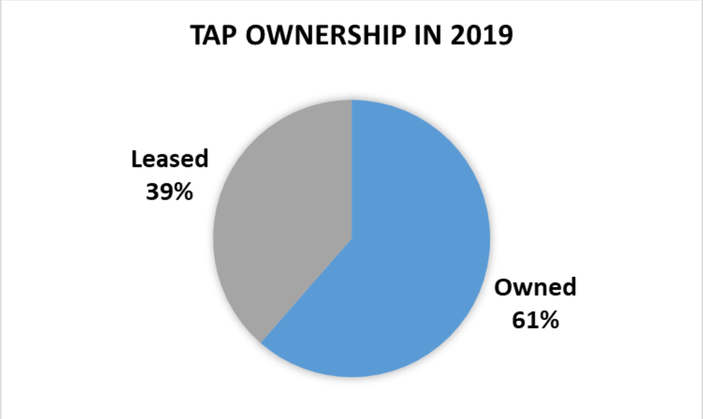
Many different approaches are used to establish a value for rented maple trees and forests. Annual rental payments on a per tap or per acre basis are very common. The exchange of finished syrup or services equal to an estimated rental rate is also a common occurrence. Any method that satisfies both parties is acceptable, however, a mutually agreed value of the tap or harvested sap is needed regardless of the form of payment.

Leasing maple trees and maple forest parcels for sap and syrup production has increased as US maple production has grown in the past decade. University of Vermont Extension conducted a regional survey of northeastern maple producers in 2019. Completed surveys were returned by 312 maple producers across several northeast states. The respondents of the survey represented 1.2 million maple taps in the 2019 season. Forty-two (42) percent of respondents indicated they leased woods or taps in 2019 and the total number of maple taps rented was 479,759 taps. Roughly 39% of total taps in 2019 were leased and 61% were owned.



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Fixed Rental Rate

A fixed cash rental rate is common in many agricultural sectors. This method assigns an annual cash value for each productive maple tap. The maple rental cost will vary according to a number of the following factors: prevailing rental rates in the region, tree quality, tap density per acre, accessibility, access to power or services, presence of sugarhouse, presence of tubing systems and other improvements.

Figure 2 below demonstrates the percentage of producers (tenants) that paid different rental rates in the 2019 Maple Producer Survey. The largest number of producers paid a rental rate that ranged from $1.00 - $1.24 per tap. The next most common rental rate was $0.50 - $0.99 per tap.

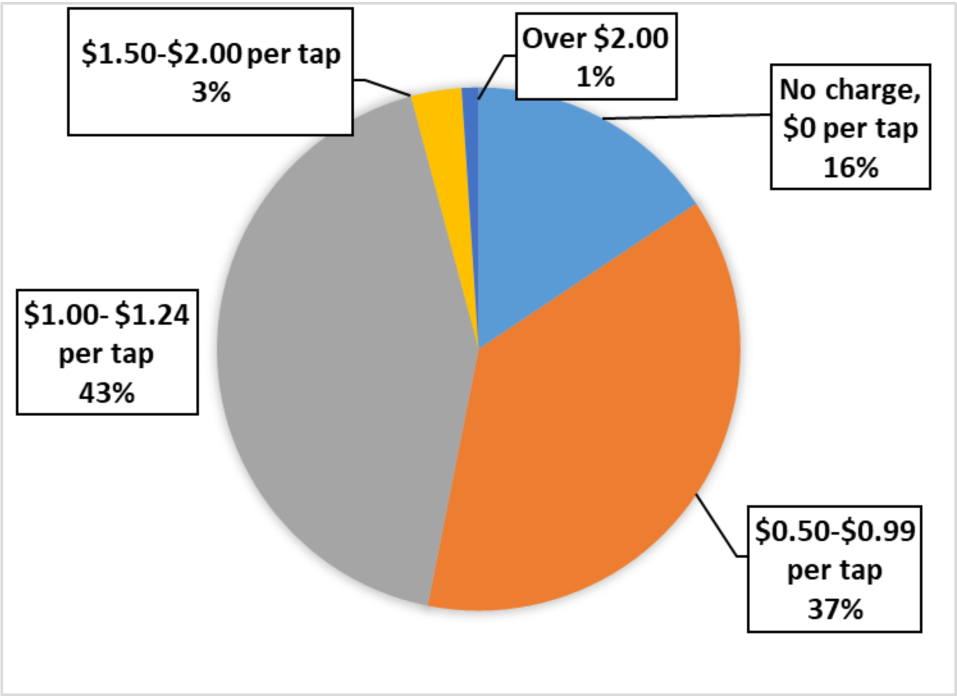

Figure 2: The percentage of maple producers paying different rental rates (2019 UVM Maple Producer Survey)

Rental rates are commonly based on prevailing rates for a region. In the absence of a publicly know maple rental rate, a new rate can be calculated for a specific forest parcel using the average regional farmland rates and estimated maple density. An example of this method shown in Table 1 below.

Annual Agricultural Land Rental Per Acre	$75
Maple Taps Per Acre	60
Calculated Taphole Rental Rate: ($75 per acre /60 taps)	$1.25 per tap

Table 1: Maple taphole rental rate using regional agricultural land rates

Adjustable Rental Rates

Adjustable rental rates provide an alternative for forest owners and maple operators that wish to adjust the rental terms to share risk or respond to changes that impact either part for better or worse. Crop yields, average sap sugar content and market price volatility are reasons to consider an adjustable rental rate in a formal lease agreement. Adjustable rental rates can provide relief for a producer that suffers a major crop failure. Adjustable rates can also provide an income benefit to the forest owner if the overall value of the sap or syrup crop increases dramatically with a large spike in syrup market prices.

The potential impact of an adjustable rate should be discussed and fully understood by the tenants and landlords. Risk-sharing by definition means that in some situations one party may recognize a gain in value or reduction in costs while the other party could experience the opposite. The following two scenarios provide examples of how to calculate an adjusted rental rate.

Adjustable Rate Scenario 1: Record Maple Prices

The US bulk syrup price has varied significantly over the past twenty years. Prices reached record highs from 2010-2012 resulting in larger income generation potential per tree, per tap and per acre of maple forest. This increased income generation was due to external market changes and not necessarily due to any superior operator management. A revenue-based rate adjustment during this period would have distributed the additional revenue between both the maple operator and the forest landowner. In the example below, a rental-to-income rate of 12% based on historic values is applied to new record maple prices. The application of the rental-to-income rate during increased prices results in a increased rental payment from $1.00 per tap to $1.40 per tap paid to the forest landowner.

Five Year Average Bulk Syrup Price: $2.25 per pound

Prevailing Rental Rate: $1.00 per tap

Historic Yield From Sugarbush: 3.9 pounds per tap

Projected Revenue Per Tap: $2.25 x 3.9 = $8.78

Rental-To-Income Rate: $1.00 Per tap / $8.78 = 12%

For a period of 2 years the bulk syrup price increased to $3.00 per pound (33% above the five year average).

New Revenue Per Tap: $3.00 per pound x 3.9 pounds = $11.70

Standard Rental-to-Income Rate: 12%

New Rental Rate: $11.70 x 12% = $1.40 per tap

Additional Gross Revenue During Record Price: + $2.92 per tap

Additional Rental Payment = + $0.40 per tap

Adjustable Rate Scenario 2: Crop Failure

The previous scenario described how to adjust a rental rate to distribute the proceeds of excess income between both landlords and tenants. In scenario two the same mathematical steps are applied to adjust the rental rate down. In this example, the risk or consequence of poor yields are distributed between the maple operator and the forest landowner. This technique is useful when the forest landowner is in a position to bear additional risk and has a vested interest to moderate the impact of production risk that would otherwise fall entirely on the maple operator.

Five Year Average Bulk Syrup Price: $2.25 per pound

Prevailing Rental Rate: $1.00 per tap

Historic Yield From Sugarbush: 3.9 pounds per tap

Projected Revenue Per Tap: $2.25 x 3.9 = $8.78

Rental-To-Income Rate: $1.00 Per tap / $8.78 = 12%

In 2012 the sap harvest season ended early due to early spring warming conditions. In this example a 50% crop yield, experienced by many producers in 2012, is used to adjust the rental rate down.

New Revenue Per Tap: $2.25 per pound x 1.95 pounds = $4.39

Standard Rental-to-Income Rate: 12%

New Rental Rate: $4.39 x 12% = $0.53 per tap

Rental Payment Reduction = - $0.47 per tap

Landlords and tenants are free to develop any number of rental agreements or utilize techniques that distribute risk or reward between the two parties. Previous relationships (family or friends), duration of the lease, presence of external risk and experience level of the operator are important factors that shape a business relationship and the contents of a formal lease agreement. Crop sharing agreements and payment terms (multiple payments, payment timing) are not covered in this guide, but are also worth researching for your particular rental situation.

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