



# Getting the **taste right**

## Metabolism off-flavor taints maple syrup

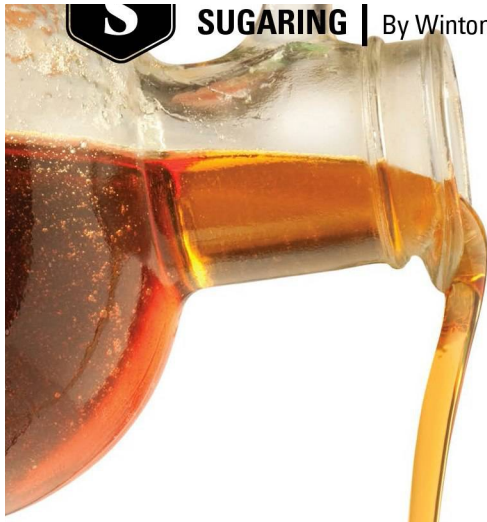
**T**hose who are maple connoisseurs can identify dozens of different flavors in maple syrup—vanilla, marshmallow, caramel, butter, even cloves. Flavor is affected by the minerals in the soil, by weather, and by production practices, among other factors, and some people refer to the “terroir” of their favorite syrups in the same way that they talk about their favorite wines.

But sometimes maple syrup doesn't taste right. Many off-flavors are caused by poor production techniques, but some occur naturally, and a good sugarmaker needs to be able to detect and not bottle and sell syrup with these offensive tastes, lest customers try them and then sour on maple syrup for good due to their bad experience.

One such off-flavor being discussed quite a bit this season is referred to as metabolism. Some describe the taste as being like wet cardboard, others detect chocolate tones, and still others call it

“woody.” Not to be confused with the “buddy” flavor that comes with late-season syrup, when buds are starting to swell, metabolism usually occurs early in the season. This makes it particularly heartbreaking, since it often affects the prized light syrup that comes from early runs and is saved for making candy and cream.

The flavor is caused by a class of naturally-occurring compounds called pyrazines, commonly found in many foods, but which can taste “off” or bad in elevated levels. It seems to be associated with cold winters with few or no thaws, as most of the maple region had during the 2014-15 season, according to Dr. Timothy Perkins, director of the University of Vermont Proctor Maple Research Center. Perkins said that thaws during the winter likely allow amino acids in the sap from the fall to dissipate, instead of coming out during the first runs. It is also sometimes associated with high nitrogen levels in the soil, he said.





Metabolism is particularly challenging because some people are less sensitive to the off-flavor, and may not notice it at all, while others may find the flavor to be particularly offensive. A sugarmaker who isn't sensitive to the flavor, then, might inadvertently bottle and sell this poor quality syrup. It can be masked somewhat by strong flavored syrup, but some sensitive tasters might still notice it. It sometimes isn't detected when the syrup is made, but is noticeable later on, when a barrel is opened for bottling. It cannot be detected in sap, so the only way to find out if it is occurring is after all of the labor and costs of making syrup have been invested.

Blending even a small amount of metabolized syrup with a larger batch of good syrup can result in a larger batch of bad-tasking syrup, so blending isn't a good solution. Perkins' research found that reboiling affected syrup to a higher density, and then blending it with water to return it to the proper density for syrup, can result in a strong-flavored, darker syrup with little to no remnant of the metabolism taste.

When metabolism occurs, it tends to affect large quantities of a season's crop throughout the maple producing region, so sugarmakers should be on the lookout when buying syrup in bulk when they know that the problem occurred. The maple industry depends upon positive customer experiences with our products, so it is in everyone's interest to keep off-flavored syrups off the market. **F**

Winton Pitcoff is a freelance writer and coordinator of the Massachusetts Maple Producers Association.



**CDL Maple Sugaring Equipment**  
is proud to  
**announce a new partnership with**  
**F.W. Webb**



*Visit our website for more details:*  
**www.cdlusa.net**

**In the coming weeks,  
you will be able to find  
your CDL Supplies in  
many F.W. Webb stores**

**CDL, the reference in maple**  
**1-800-762-5587**

Visit Our Well-Stocked Showroom & Country Gift Shop Featuring Pure Maple Products

Check Out Our Fancy Cardinal and Bluebird Bottles

**SHAVER-HILL MAPLE**  
**MAPLE EQUIPMENT**  
New & Used  
**607-652-6792**  
www.shaverhillfarm.com  
310 SHAVER ROAD,  
HARPERSFIELD, NY 13786

**AUTHORIZED DEALER**

**INDIANA VACUUM**

**CHECK OUT OUR MONTHLY SPECIALS!**

- Liquid Ring Pumps
- Highest CFM
- Highest Vacuum at 29"

BUSH DRY ROTARY AND LIQUID RING VACUUM PUMPS AVAILABLE

ALSO WE HAVE LP IN ALL UNITS, NATURAL GAS IN LARGER UNITS AS WELL AS DIESEL

**Arthur Harris**  
**Indiana Vacuum dba Harris Sugar Bush**  
Phone/Fax 765-653-5108 • Cell # 765-301-0389 • E-mail: aharris@link2000.net  
Visit our web site **www.harrissugarbush.com** for more information.