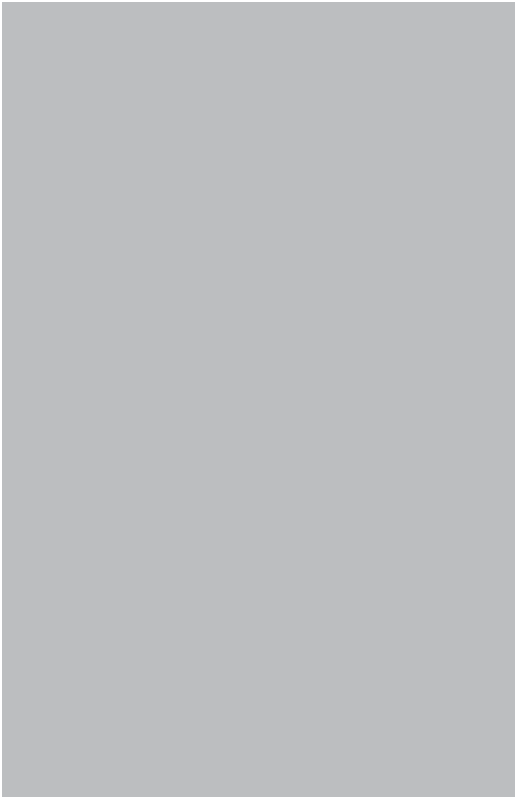


Maple syrup commands a premium price relative to other sweeteners because of its rich history, its absence of artificial ingredients, the fact that it is minimally processed, and most of



- A temporary grade kit is an inexpensive guide to grading syrup color. The kits include a set of glycerin standards tinted to the lower limit of color for Golden, Amber and Dark. The color of these standards will fade when exposed to light, warm temperatures or simply over time. This means that producers will find the color for each grade standard gets lighter over time so much so that it is nearly impossible to make syrup that meets the color of the Golden standard. Purchasing a kit made for the current year season is the best way to ensure that the standards are as accurate as possible.
- Occasionally producers will grade a batch of syrup to which ever grade standard it is closest to. This is especially tempting when a batch of syrup is very close to the lower limit of a particular grade. Small differences will only get larger as syrup ages.
- A photometer can produce inaccurate readings as well, if not used properly. Syrup samples that have not been well filtered, jars that are scratched or dirty, syrup with air bubbles as well as hot or cold syrup can lead to incorrect measurements of color.
- Remember that color can change after grading and after packing if syrup is not handled properly. Packing hot, newly filled syrup containers into boxes can cause stack burn, which darkens syrup after it is bottled. To avoid this, provide more space around containers while cooling, and don't box up syrup until it has cooled to room temperature.
- In some cases syrup gradually darkens in the container from top to bottom. This is called layering and the underlying causes are poorly understood. Once the process starts it will darken the entire container of syrup. This represents another reason to keep a separate sample of syrup

process starts it will darken the entire container of syrup. This ~~process~~.

(preferably in glass) to periodically check the color grade.

Clarity

Most of the cloudiness found in unfiltered syrup is a naturally occurring calcium precipitate also known as sugar sand or niter.

Syrup clarity is a reflection of how well this cloudiness has been removed during filtering. Gravity filtering, while not as effective as pressure

filtering with filter aid, can produce acceptable results.

More sugar sand can be formed if syrup is allowed to overheat.

- If using gravity filtering methods, remember that damaged cone filters can allow unfiltered syrup to pass. Avoid twisting or wringing the fabric when rinsing.
- More sugar sand can be formed while canning. Avoid this by keeping well-filtered syrup between 180-200F when reheating.
- Sometimes sugar sand is too fine to be caught in a filter

press. The result is syrup with a slight haze. It is generally accepted that filtered syrup that is “practically clear” includes syrup that was filtered through cloth and may not have the polish of filter pressed syrup.

- To make sure no foreign materials have found their way

suitable for syrup.

- To ensure that off-flavors don't go undetected, have more than one person taste each batch of syrup. This is best done at one time and not when actively boiling.
- New cloth filters can have residue from the manufacturing process that can impart an off-flavor to syrup. Make sure to rinse new filters with lots of hot, clean water.
- Use only the amount of defoamer needed to control foam

while boiling. Using too much defoamer can result in an off-flavor or unpleasant mouthfeel. Buy new defoamer each season since old defoamer can impart a rancid off-flavor to syrup. Be extremely cautious about how defoamer is added to the evaporator. Simple oil drippers are popular but can add excessive amounts of defoamer if not adjusted properly. Additionally, some sugar makers

use spray bottles for defoaming mistakenly believing that the fine spray does not contribute a great amount of defoamer.

- Sap that has been stored for a prolonged period of time or in warm conditions will likely produce "sour" off-flavor to the syrup. Make sure to process sap as quickly as possible after gathering.



Store and handle diatomaceous earth (DE) carefully. If this filter aid gets damp or musty, it can impart a musty flavor to your syrup. The safe handling of DE includes taking precautions to avoid inhaling the DE particles.

- Even the small amount of moisture that remains in the barrel from steam cleaning can grow mold over the summer and contaminate an entire batch of

syrup with a musty off-flavor. Wash and inspect barrels before filling.

- The inexpensive plastic bung gaskets provide an airtight seal for barrels and should be inspected every time a barrel is opened or sealed. Replace if they look damaged in any way.
- Some producers use cloth filter material to strain sap before further processing. These filters

should be thoroughly cleaned

This supplement to the June 2018 Maple Syrup Digest is an educational tool developed for sugarmakers by the North American Maple Syrup Council as part of its mis-