

How to Use Sweet Potatoes for Beer or Distilling

Sweet potatoes can be fermented into **beer, wine, or distilled spirits** because they contain **natural starches that convert to fermentable sugars**. The key is **proper starch conversion** before fermentation. Here's how to do it:

1. Preparing Sweet Potatoes for Fermentation

Since sweet potatoes don't contain enough natural enzymes to break down their starches into sugars, you need **one of two methods**:

1. **Malted Grains (Barley or Wheat Malt):** Provides natural enzymes for starch conversion.
2. **Amylase Enzyme Powder:** A modern shortcut that efficiently breaks down starches into fermentable sugars.

2. Cooking & Mashing the Sweet Potatoes

- **Clean and chop** the sweet potatoes into chunks (no need to peel).
- **Boil or bake** until fully soft (baking enhances sweetness).
- **Mash into a thick consistency** with enough water to create a porridge-like mixture.
- **Cool to around 150°F (65°C)** before adding enzymes or malted grains.

3. Starch Conversion (Making the Mash)

- **If using malted barley:** Add **10-20% crushed malted barley** to the mash and hold at **145-155°F (63-68°C) for 60 minutes**. Stir occasionally.
- **If using amylase enzyme:** Add **1 teaspoon per 5 gallons** of mash and maintain the same temp for 30-60 minutes.

You'll know conversion is done when the mash **thins out and becomes sweeter** as starches turn into fermentable sugars.

4. Fermentation (Turning Sugar into Alcohol)

- **Cool mash to 70-80°F (21-27°C).**
- **Transfer to a fermenter** and add a neutral yeast like **EC-1118 (wine yeast), US-05 (beer yeast), or distiller's yeast**.
- **Ferment for 5-7 days** (or longer, depending on yeast).
- **Once bubbling slows, check with a hydrometer**—if it's around 1.000 SG, fermentation is complete.

5. Making Sweet Potato Beer or Distilling the Mash

- **For beer:** Strain the mash, boil with hops if desired, and bottle with priming sugar for carbonation.
- **For distilling:** Run the fermented mash through a **pot still or reflux still** to extract ethanol.
- **For high-proof spirits:** Do a second distillation and collect in proper fractions.

Final Notes

- **Baking vs. Boiling:** Baking caramelizes sugars, adding depth to beer and spirits.
- **Filtration:** Sweet potato starch can make fermentation thick—use rice hulls or strain well.
- **Flavor Profile:** Expect **earthy, mildly sweet, and nutty flavors**, especially in whiskey-style spirits.