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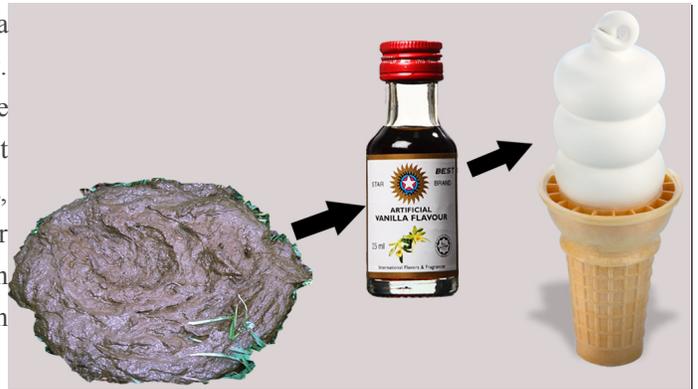
Turn Cow Dung Into Vanilla

By Kathy Voth / March 31, 2014 / 3 Comments

Yes, you can spread your manure over your pastures and create fertile soil. But if you're thinking of diversifying what you produce, perhaps you want to collect a little for your own use, and turn it into vanilla!

The demand for vanilla has far exceeded the supply of vanilla beans, so since the 1800s, we've been making it synthetically.

Today only 5% of vanilla comes from beans, and people have become so used to the taste of synthetic vanilla that they prefer it over the real thing. That synthetic stuff is made a variety of ways, generally from the lignin in wood pulp, a byproduct of lumber milling processes. Since lignin is a by-product of the digestion process as well, Ms. Yamamoto decided "Why not use the lignin in manure to extract vanillin?"



How do you extract vanillin from cow dung? I'd love to tell you, (<http://onpasture.com/wp-content/uploads/2014/03/DungVanillaIcecream.jpg>) but I don't understand the process yet. Apparently it revolves around the fact that plants contain aromatic compounds and scientists have figured out ways to separate them out. Did you ever think you'd see these three things in the same picture?! In fact, as part of her process, Ms. Yamamoto and her colleagues were able to also extract products that smelled like coffee and cocoa.

One and a half gallons of cow dung "subcritical" water slurry can produce 1 ounce of vanillin. Folks have asked Ms. Yamamoto if she sees commercial potential for her vanillin. Knowing that most vanilla is used in ice cream she responded "Would you eat ice cream with cow dung?" Turns out some folks will. In honor of Ms. Yamamoto receiving the Ig-Nobel prize for her work, Toscanini's Ice Cream of Cambridge, Massachusetts created a new flavor using her vanillin called "Yamamoto's Vanilla Twist." It was just a small batch, but those who ate it said it was quite good.