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Meat Confusion?

As if there weren't enough confusion on what is what that you are eating, natural, organic, grass fed, grass finished or conventional raised meat. Now there are some newer players on the market. Plant based or vegan meat, which actually has been around for some time, but getting some new attention as being advertised by fast food chains.

What is new the plant based burgers have some genetically engineered heme to make them bleed! Which is problematic for vegans if their plant burger bleeds onto the beef burger during preparation.

Now the buzz is cultured meat, lots of money being poured into this project. Cultured meat collects stem cells from living animals and then are grown in a lab. A typical growth medium contains an energy source like glucose, synthetic amino acids, antibiotics, fetal bovine serum, horse serum and chicken embryo extract. These are a problem for vegans because it is still animal based. The go-to for culturing tissue involves the use of fetal bovine serum, byproduct of pregnant cows being slaughtered, then collected from fetuses. It is uncertain if they will come up with animal free alternative. All sorts of things have to be added to keep the cultured meat growing.

Real meat is a high quality protein with a full range of essential amino acids, vitamins and minerals. If cultured meat is to match or exceed, all of this would need to be added. Vitamin b12 can only be derived from animal origin. However, it can be produced by microbes in fermentation tanks, that sounds natural!

One of the investors claims that they will take burger production out of pastures and into factories! Now wait just a minute, I thought consumers were against "factory farming". It's so confusing.

You just have to ask yourself why? Cultured meat will require more industrial energy than the livestock that produce the same amount of protein. It could use less land and ag inputs, but at a higher reliance for industrial energy. Green house emissions? All of agriculture only attributes 9% of green house emissions for the United States and livestock production is 4%. Transportation is at 80%. The roaming wild and free buffalo of the past, had more green house emissions than we have today in the livestock industry. So why?

June 2019 AT Kearney claims that "in 10 years only 40% of global meat consumption will still come from conventional sources". By 2040 cultured meat will make up 35 percent, plant based 25% and the other 40% will be raised on four feet. By 2040 the demand for meat with egg, fish and dairy added will be 1752 million metric tons.

Using their prediction, and simple math means there should be 886 trillion plant based burgers and 1.2 trillion cultured meat, that is amazing for an industry that has yet to produce one single product. As producers, we need to recognize these "new innovations" and remember that we are raising a good wholesome product "naturally". That cow is the most efficient at taking that grass, that humans cannot use for food and converting it to protein. I think I can speak for a majority of people, I want my meat raised on four hooves, not four petri dishes!

Source: Alison L Van Eenenaam, PhD University of California, Davis=Alternative Meats and Alternative statistics: What do the data say?

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Soybean Residue – Worth More Than You Might Think

If you were to look at a corn and soybean field side by side, there wouldn't be any doubt which one had more residue. Every 40 bushels of corn results in approximately one ton of residue produced. By comparison, every 30 bushels of soybeans produced results in one ton of residue. When you factor in potential yields of those two crops, simple math tells us what we see visually: corn produces more residue than soybeans.

That doesn't mean that soybean residue is unimportant. A look at residue removal (if completely removed by baling, etc...) from University of Nebraska Extension publication G1846 – *Harvesting Crop Residues* – shows that soybeans remove the same amount of nitrogen (17 lb/ton) as corn does. That residue also houses three pounds per ton of phosphorous and 13 pounds per ton of potassium. That means that the residue left behind from a 50-bushel bean crop is holding almost 30 pounds of N, five pounds of P and just over 20 pounds of K.

The nutrient value isn't the only benefit. UNL research suggests that at least two tons per acre of residue should be left on the field if you are trying to maintain soil organic matter. If you are trying to prevent soil erosion, levels *above* two tons per acre are suggested. Prevention of evaporative soil losses from residue presence are a bonus as well.

Soybean residue *is* important. We may not see much out there at first glance, but it's value is likely more than we think.

Controlling Volunteer Trees

Volunteer trees can be a landscape mess. If they try to grow in the lawn, we can mow them off multiple times and they tend to go away. If in a landscape or windbreak, however, it's a different story. If transplanting them isn't a desirable option, the dormant season is often a good time for removal, but does require some understanding of how that tree is growing.

For starters, remember that most trees re-sprout after cutting. Redcedar is an exception, but most deciduous trees re-sprout unless cut repeatedly. Siberian elm, hackberry, ash, oak, and maple, for example, all re-sprout and will need to be dug out or the cut stump treated with herbicide after cutting.

Before using any herbicides, however, remember as well that true volunteer trees are those that come from seed, and not those that originate from the roots of an existing tree (suckers). The practices that work on volunteer trees are not always recommended for suckers, so knowing if you have a volunteer tree versus a sucker versus even a root grafted tree (that shares material between root systems) is important. Herbicides applied as a stump treatment to root grafted trees or suckers can result in death of the main tree. Only volunteer trees should be considered for any herbicide treatments.

If nuisance trees are one of your winter projects, start determining now what type of tree you are dealing with. A good control program is one that removes the volunteer tree, but doesn't harm the other desirable trees in the landscape.

Cindy Williams
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Skip the “Humbug!” Tips to Relieve Holiday Stress

Few families will match the idyllic images captured in holiday advertisements, but most can find joy during the holiday season. Everyone is encouraged to extend the thankfulness typically associated with Thanksgiving celebrations throughout the holiday season---and into the new year.

Feeling grateful for home, family, friends and life in general spills over into other activities and to others who sense your gratitude. Gratitude itself can have a calming influence.

A little planning also can go a long way in relieving family stress---and holiday stresses. The following time---and stress-management tips are offered:

- Start early to plan family and other gatherings.
- Involve others, so everyone will be informed. Surprises can add stress unnecessarily.
- Be responsible. If the family is planning a potluck and you promised to bring the main dish, be on time, with enough food to serve everyone expected.
- Ask adult children what they would like to bring, rather than making arbitrary assignments. Let’s face it---a daughter-in-law may enjoy making fruit salad, but not pie crust.
- Explain house rules to children.
- Leave disciplining others’ children to the children’s parents.
- Plan age-appropriate activities, such as soccer or touch football, table or board games.
- Keep the peace---try not to bring up touchy subjects.
- Don’t overstay---everyone needs his or her own space and time for self.
- No family nearby? Call a local chamber of commerce or community service organization and volunteer to help serve a community dinner or give time to a food or toy drive.

Focus on others, rather than yourself by inviting others to join in a potluck, watch a movie or sports event to share the day. Calling family and friends also can help those who are alone stay connected.

And, if you like---and can---treat yourself to an afternoon off, new book, video or craft project. The dog might like an extra walk, too.

Nancy C. Nelson
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Family Life

Cleaning Products

What's the #1 cleaning product we have in our homes? According to American Cleaning Institute's 2019 American Cleaning Survey, 98 percent of households regularly stock cleaning products at home. That's great news because clean = happy and healthy.

Cleaning the surfaces in our homes and our possessions not only keeps them in good condition, but also removes dirt, germs, allergens, dust, mold and bacteria that can make us sick.

What's the number one product that is stocked in 83% of our homes? According to the survey, the answer is a toilet or bathroom cleaner (which makes sense since bathrooms are one of the most used rooms in the house). Other things we usually have at home at all times are multi-purpose spray cleaners (77%), window cleaners (74%), multi-purpose surface wipes (62%), wood or furniture polish (49%) and carpet cleaners (45%). What other products do you have in your cleaning closet?

Laundry Solution: When to Wash It

The sniff test may tell you if you wore enough deodorant but doesn't always let you know when you need to wash your clothes. What you do, the fabric type, the wear and the weather all play deciding factors.

The American Cleaning Institute offers tips to help determine if it's time to wash those bed sheets, jeans, shirts, socks and underwear.

Here's how often you should wash some of the more common items that need to be laundered - jeans: after wearing them 3 times, coats: once or twice per season, sheets: wash once every two weeks, and towels: after every 3-5 normal uses.

There are a few exceptions. One is whites, which should be washed after each wear, as they are prone to discoloration.