



Chapter 6: Addendum

6.8.5 Vegetable ash

Vegetable ash (also called vegetable carbon or vegetable black) is a form of finely divided carbonized material of vegetable origin, and not of petrochemical or hydrocarbon sources.

You can read more about its use in these supporting materials:

EFSA Panel on Food Additives and Nutrient Sources added to Food (AANS). Scientific Opinion on the re-evaluation of vegetable carbon (E 153) as a food additive. EFSA Journal 2012 10(4):2592.

<https://efsa.onlinelibrary.wiley.com/doi/10.2903/j.efsa.2012.2592>

Function and Application of Vegetable ash

There is a long history by the cheese industry of using vegetable ash in cheesemaking for technical effects in cheese. For example, vegetable ash is used as a pH buffer to decrease the acidity of the surface of cheese to allow desired fungi to develop earlier in the aging process.

According to the FDA, vegetable ash is not an approved colorant for foods in the U.S.^{1, 2} Therefore, vegetable ash can only be used for a purpose or purposes other than coloring, and the vegetable ash must be used in a way that any color imparted is clearly unimportant insofar as the appearance, value, marketability, or consumer acceptability is concerned.³ Based on the historical use of vegetable ash in cheesemaking, the Office of Food Additive Safety's (OFAS) current position is that they would not require a color additive listing for vegetable ash when it is used for regulating pH in either domestic or foreign/imported cheese products.

FDA currently does not have a food additive regulation permitting the addition of vegetable ash to cheese for the technical effect of acidity regulation nor has it determined vegetable ash to be Generally Regarded as Safe (GRAS). The FDA has not been notified of a GRAS conclusion for vegetable ash for this purpose or received any submissions through their voluntary GRAS Notification Program.⁴ Companies can make a self-determined GRAS conclusion for the use of vegetable ash as a "pH buffer". Substances concluded to be GRAS for an intended use do not require pre-market approval nor notification to FDA. It is unlikely FDA would challenge a self-determined GRAS conclusion based on a long history of safe use of vegetable ash for acidity regulation and other uses in cheesemaking. It should be noted, however, that it is possible that FDA could undertake an effort to evaluate the science and possible negative health impacts of vegetable ash.

Sourcing Vegetable Ash

Companies using vegetable ash for technical effects in cheese products other than coloring should source the ingredient from a vendor who has made a GRAS determination and by using vegetable ash in the manner and quantity specified by that supplier. Vegetable ash sold for the purpose of coloring cheese should not be purchased and vegetable ash should not be self-produced.

Labeling ash

If vegetable ash is being added to cheese then it needs to be included on the ingredient label. The purpose or purposes of vegetable ash as an ingredient should be noted, keeping in mind that vegetable ash cannot be used as a colorant. For example: “vegetable ash (acidity regulation)”.

How to Pack Ash-Coated Cheese

Vegetable ash-coated and mold-ripened cheese will typically be packaged in cheese paper or freezer wrap to allow the mold to continue to thrive and the cheese to mature at retail. Wax or plastic packaging that cuts off oxygen will create excess moisture for the ash surface and will kill molds, resulting in undesirable flavor changes in these types of cheese.

¹ Nutrition, Center for Food Safety and Applied. n.d. “Color Additive Inventories - Color Additive Status List.” Web Content. Accessed July 12, 2018.

<https://www.fda.gov/forindustry/coloradditives/coloradditiveinventories/ucm106626.htm>.

² Miranda-Bermudez, E., N. Belai, B. Petigara Harp, B.j. Yakes, and J.n. Barrows. 2012. “Qualitative Determination of Carbon Black in Food Products.” *Food Additives & Contaminants: Part A* 29 (1): 38–42. <https://doi.org/10.1080/19440049.2011.616535>.

³ U.S. National Archives and Records Administration. Color Additives: Definitions. Electronic Code of Federal Regulations. 21 CFR 70.3 Accessed August 21, 2018. https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=4f24173e123862f304a68faca733dd3f&mc=true&n=sp21.1.70.a&r=SUBPART&ty=HTML#se21.1.70_13.

⁴ Nutrition, Center for Food Safety and Applied. n.d. “Food Additives & Ingredients - Food Additive Status List.” Web Content. Accessed August 22, 2018.

<https://www.fda.gov/Food/IngredientsPackagingLabeling/FoodAdditivesIngredients/ucm091048.htm>.