Task Group on Calculations
Meeting Summary
Wednesday April 23, 2008

Participants

Bob Durst- CHAIR- *Simple Organic Solutions;* Dave Bronner- *Dr. Bronner's Magic Soaps;* Curt Valva- *Aubrey Organics;* & Lorna Badman – *NSF International*

Action Item

1. L. Badman will draft the response memos for B. Durst to complete.
2. C. Valva will contact G. Timmons and the Aloe Council regarding reconstitution of Aloe
3. D. Bronner and L. Badman will contact FSC regarding the process controls and auditing.

Discussion

B. Durst called the meeting to order. The purpose of the teleconference was to address the comments received during the ballot and public comment period.

The following are the comments received on sections 7:

1) NATRUE

We suggest that all raw materials which can be organic should be included in the calculation of organic. Thus for sulphated castor oil, according to *table 5.1.,* a maximum of 60% organic ingredients would be possible, while the remaining 40% could never be organic and would thus have to be calculated in as neutral. The advantages of such a basis for calculation are greater transparency for the consumers as well as increased pressure on the producers of the raw materials to use organic plants even in the production of modified raw materials. This pressure would be even greater if an international standard were to be agreed upon.

Modified raw materials, which are not yet available in organic quality, should be regulated as a positive list (compare *Table G.2*) and considered as neutral.

There is a misunderstanding regarding the organic content of a particular ingredient. A mixed ingredient product, which included a restricted ingredient, could qualify for an organic claim. The TG on Composition is in process of creating an illustrative list and not a positive list. Their request to have modified materials is against the premise of the standard.

Table 5.1 &
6.5 Organic percentage of a reacted ingredient
The values in table 5.1 shall be used in calculating the organic percentage of a final product using reacted ingredients. Although most of the products of the specified reactions are likely to be restricted to the "made with" label category, the percentage listed shall not be the final determinant of that category.

We would like to question why the use of certain processes means that certification as "organic" should no longer be possible.
Consumers see the difference between "made with organic xxx" and "95% organic" only as an expression of the organic material it contains, and not as a reflection of the manufacturing process of the raw materials.

We are of the opinion that for all those processes allowed under the NSF Standard the labelling as "organic" must be possible.
As already described above, for the calculation of "organic" that amount of the substance that has the potential to be organic (e.g. in glucosidation 98%) should be taken.

There is a misunderstanding regarding the calculation of organic percentage with the labeling concept. A practice prohibited at the O95 level, but allowed for O70 would force a product to be labelled as O70 regardless of the organic content calculation (even if it was determined to contain 99% organic, it would still be labelled as per O70 standards).

6.2 Calculating organic percentage

In addition to water and salt all minerals should be listed here - for they too can never be organic.

Mined minerals will be considered as neutral for O70. Allowed processed minerals will be included in the organic calculation. This change will need to be through out the Standard were neutral ingredients are included.

6.3.1.1 Reconstitution
When a standard of identity exists or there is an onsite scientific method used to remove moisture from a plant, water can be added back into that plant product and still be considered as part of the original plant. For instance, a concentrate that fulfills the organic requirements of this Standard can be rehydrated back to single strength or back to the same moisture content it had when harvested or first tested; the added water shall be considered part of the organic content of that ingredient or product.
Added water shall be included in the organic content of an ingredient only under the following circumstances:
– Reconstituting juice concentrates back to their USDA single strength standard of identity; and
– Reconstituting aloe concentrates to single strength based on Aloe Council compliance and standards. Water content of extracts and hydrosols are specified in 6.4 of this Standard.
NOTE – Water added to rehydrate dried powders or dried plant material is counted as added water. Manufacturer-specific 'standards of identity' regarding water content, single strength values, or moisture content are not acceptable.

We consider this approach to be inconclusive. If water is extracted then it should, as a matter of principle, not be re-included in the calculations. Why is it that concentrates and aloe receive different treatment here to other drugs? There is a danger that because of the exceptions made for juices and aloe e.g. a small amount of 0.3% of a dried aloe extract will be used 200:1. Using reconstitution a very high percentage of organic can be achieved from this small amount (in certain circumstances over 50%). This is misleading for the consumer.

Concentrate is considered a liquid product not a dry product. Reconstituting a dry product is contrary to the regulations but reconstitution of a concentration is allowed. The example used of 200:1 is an extremely large amount of water being added to the aloe. The USDA NOP allows aloe in a dry form to be reconstituted. Exceptions have been made for aloe. There is a cost difference between dry vs. concentrate. Before making a decision, more information is needed. C. Valva volunteered to contact the Aloe Council and G. Timmons to obtain more information on reconstitution of aloe.

TERRESSENTIALS
6.2/6.3 -- Minimally, simple water and/or filtered, processed NOP compliant mined minerals should be neutral ingredients, as are water and salt. This is referred to in 7.2.1.

Mined minerals will be considered as neutral for O70. Allowed processed minerals will be included in the organic calculation. This change will need to be through out the Standard were neutral ingredients are included.

CRAIG MINOWA – OCA
Minerals that have not undergone chemical washing or processing should be considered neutral in formulations.

Mined minerals will be considered as neutral for O70. Allowed processed minerals will be included in the organic calculation. This change will need to be through out the Standard were neutral ingredients are included.

DAVID BRONNER – DR. BRONNER'S

Also, there was a lot of back and forth on whether clays and mined minerals should be considered neutral like salt and water under the NOP. The current standard does not treat such mined minerals and clays as neutral: I believe because there is a fair amount of processing/washing of many clays and mined minerals that makes such a designation questionable. I tend to think we should just leave things as is, but wanted to note this.

Mined minerals will be considered as neutral for O70. Allowed processed minerals will be included in the organic calculation. This change will need to be through out the Standard were neutral ingredients are included.

Hello All:

A big stumbling block for the development of the surfactants allowed under NSF from organic material, is the problem of scale in getting fatty alcohols produced from certified organic oils; fatty alcohols are the basic surfactant building block/sub-ingredient for various surfactants. Fatty alcohols are also utilized extensively in their own right, in lotions and hair conditioners allowed under the NSF standard. To make fatty alcohols, triglyceride oils are transesterified with methanol to make methyl esters, which then need to be hydrogenated at extremely high pressure to produce fatty alcohols. The operations that do this are very capital-intensive huge-volume operations, and impossible to get a small dedicated batch run with certified organic oil exclusively within any reasonable cost/efficiency structure. I believe something like 300 MT minimum runs is what we were looking at, as we have an all-purpose cleaning product based on coco glucoside and SCS, and so have spent time looking into this.

Accoring to "Branded! How the Certification Revolution is Transforming Global Corporations" the FSC implemented a change to the straight % FSC claim that, one, allowed a "volume-credit" as I outlined below to happen, while two, implementing tighter controls on the non-certified content (no GMO, no old growth, no illegal harvested wood, no "social turmoil"/trampling of worker/indigenous rights). This was to respond to the fact that Sweden had the largest proportion of FSC certified forest, but Swedish processors were not bothering to certify much actual output product.

Page 89-90: "The volume-credit system allowed companies to place an FSC logo on products coming out of a mill in direct proportion to the FSC-certified inputs going into the mill over a defined period of time. For example, if the mill could show that 50 percent of the pine or fir it purchased for making the windows during a given month or quarter came from FSC-certified forests, it could place the FSC logo on 50 percent of the windows produced with that wood during that period.

"From the point of view of some FSC stakeholders, this change came with a high psychological cost. If you purchased a window with the FSC logo on it, you could no longer be absolutely certain that the wood in that window actually came from trees harvested from an FSC-certified forest. You could, however, be confident that by purchasing that window you were providing direct support to the improvement of forest management worldwide. It required trust in the system. To bolster that trust, environmental advocacy groups agreed to the introduction of the volume-credit system only if a system for improving the control of uncertified wood was strengthened….

"The volume-credit system proved to be useful in unexpected places. Representatives of the social chamber argued, at the 2005 general assembly, that small-scale indigenous and community based certified forests were finding it easier to convince local mills to become CoC (Chain of Custody) certified because the standards no longer required that they implement costly physical segregation for small batches of certified timber."

(Me aain) In a similar vein, buying "green energy" off the grid doesn't deliver any dedicated green energy different from the brown energy everyone else gets off the grid. You still get the same brown energy, but your funds are allocated to and enable scale-up of green energy sources that are feeding energy into the overall grid.

I'd like to propose under NSF that for fatty alcohols made from certified organic oils, and potentially steam-splitting organic oils to make glycerin and fatty acids too (the other main basic sub-ingredients for NSF processes) which also has similar scale issues, that on a temporary basis that sunsets after enough market volume is reached, that the NSF standard enable certification of a fatty alcohol output volume (and potentially fatty acids and glycerin) proportional to the certified organic oil input that's diluted into a larger conventional oil input volume. So for instance, if 50 MT certified organic coconut oil is mixed with 250 MT of conventional coconut oil feeding into a fatty alcohol operation, than 50 MT of the resulting fatty alcohols and glycerin would be certified under NSF as "Coco Alcohol/Glycerin made with Organic Coconut Oil", even though the actual certified fatty alcohol would be diluted per the input organic/conventional oil ratio of the overall run. The

certified Coco Alcohol could then be sulfated, or combined with organic glucose in a glucosidation reaction, to produce "Sodium Coco Sulfate / Coco Glucoside made with Organic Coconut Oil".

I think this is the advantage of the "made with Organic" nature of the NSF standard, that we can build in this kind of flexibility. A straight "Organic" product designation would require the high-bar NOP standard of complete authenticated/certified purity, free of any commingling of conventional material. But under the NSF "made with" standard, I think we can be flexible here, and address the fundamental chicken/egg problem of getting certified fatty alcohol, fatty acid and glycerin produced efficiently from certified organic material. This accords with the realities that FSC and green energy schemes have to deal with as well. And this allowance would hopefully be sunsetted after a couple years under a sunset review, that will determine whether market volumes are able to justify dedicated certified runs at the scale fatty alcohol/acid/glycerin manufacturers work at.

This isn't without controversy but is similar to green energy purchasing, and USDA certifiers can easily certify that the certified output volumes correspond to certified organic input volumes. (USDA certifiers generally certify the much more strict total segregation of organic versus conventional in production).

Depending on the scale of the actual downstream sulfation and glucosidation operations of major players like Cognis, that make alkyl glucoside surfactants (eg. Decyl glucoside, coco glucoside, etc.), we might want to implement a similar scheme for them as for the fatty alcohol/acid/glycerin producers.

To the issue that organic consumers associate "organic" products and ingredients with a higher degree of health and safety, this isn't really an issue with the more intense NSF-allowed "made with Organic" processes we're talking about. The degree of processing and use of intermediate reagents like methanol that is fossil-fuel-based/non-renewable/toxic, makes the "health" of actual organic versus conventional feedstock pretty moot in the case of fatty alcohols. Ie Whatever trace pesticide residuals are present and of concern in the source material, is swamped by the processing intensity and synthetic inputs of the process itself. Also "made with Organic" products generally use conventional ag material anyway in the non-organic allowance. The progressive consumer interest here is more focused on promoting the organic health/sustainability/ecology of the agricultural practices and farms that provide the feedstock for core processed ingredients in NSF "made with Organic" certified products.

The USDA NOP "organic" category of personal care provides consumers with the ideal of comprehensive pure pesticide-residue-free organic ingredients with limited processing.

Best, David Bronner

Proposal 3:

In a relevant part of Section 5.3, insert a statement something like:

"For production of fatty alcohols, fatty acids and glycerin from certified organic material, the basic sub-ingredients for esters and surfactants as well as extenviely used in personal care in their own right, in recognition of the prohibitive scale of a dedicated certifeid organic feedstock run for producers that run extremely large batch or continuous operations, a "volume-credit" systme will apply.

This means that if 50 MT of certified organic coconut oil is fed into an operation along with 250 MT conventional, that 50 MT of fatty alcohols and glycerin output may be certified under NSF as "made with Organic Coconut Oil" with an organic content of 98% as specified in 5.3 (versus 300 MT of fatty alcohols certified to have less than 20% organic content which won't work for downstream NSF manufacturers).

D. Bronner described the 'volume credit' issue. FSC, who certifies sustainable forests, in Sweden have the highest proportion of certified forests. The issue revolves around the minimal amount of FCS certified products. The mills and wood processors operate on a scale that the incurred cost with a shutdown to do a dedicated run with no uncertified material was prohibitive. Therefore it was not done. FSC is demand driven to an extent. If there is a logo, the consumer become familiar with the logo and then demands product with the logo. FSC developed the 'volume credit'. If processors could document over a given time period the proportion of certified input vs. the uncertified input, they would

get a volume credit on their output product. Even though the product is a mixture of certified vs. uncertified input product, a certain percentage would be considered certified product while the remainder would be considered uncertified. This could be applied to this organic application (i.e. of getting certified fatty alcohol, fatty acid and glycerin produced efficiently from certified organic material). A manufacturer would need to have documentation of the percentages in a certain time period. D. Bronner has proposed language, which could be reviewed on an annual basis.

Concerns were raised regarding determining the amount sold under a label. A possible solution might be to have a transaction certificate that could be the product when sold to the end user. More information needs to be obtained from FSC regarding the process controls and auditing. D. Bronner and L. Badman will contact FSC regarding the process controls and auditing.

GAY TIMMONS – OH, OH ORGANIC

Under 6.2 the responsibility for determining the "organic content" is solely assigned to the handler – there does not appear to a requirement that the "organic content" be verified by the certifier. This appears to be self certification. Was this intended?

The handler is solely responsible for determining the content, but the certifier is expected to confirm this calculation/determination.

EMILY BROWN ROSEN
>>> Emily Brown Rosen <ebrownrosen@gmail.com> 3/11/2008 11:24 AM >>>
Hi Ray,
I have not been following the NSF personal care standards much, but I did take a quick look at the draft standard recently. I have no idea if there will ever be public comment on this, so I thought I would send this to you and a couple of other people I know on the committee.

The section on calculating percentage you have included (6.2) , is based on a mistake in NOP regulations. NOSB is on record since 2001, for a technical fix of the critical
sentences:

You have--
"Dividing the total net weight (excluding water and salt) of combined organic ingredients at formulation by the total weight (excluding water and salt) of the finished product;"

It should be
"Dividing the total net weight (excluding water and salt) of combined organic ingredients at formulation by the total weight (excluding water and salt) of the combined INGREDIENTS"

This is actually clarified in the ARC -auditors checklist that NOP uses when evaluating certifiers. Otherwise you are inflating the organic percentage, and it is very likely you can end up with over 100% organic ingredient due to shrinkage of final product weight. See http://www.ams.usda.gov/lsg/arc/nopauditlist.pdf , page 20.

Of course you may want to try and get some confirmation of this from NOP, but it would be a pity to promulgate further something that is a problem to begin with.

regards,
Emily

NSF Organic Personal Care

6.2 Calculating organic percentage The percentage of all organically produced ingredients in an agricultural product sold, labeled, or represented as "100 percent organic," "organic," or "made with organic [specified ingredients]," or as including organic ingredients shall be calculated by:

– Dividing the total net weight (excluding water and salt) of combined organic ingredients at formulation by the total weight (excluding water and salt) of the finished product;

– Dividing the fluid volume of all organic ingredients (excluding water and salt) by the fluid volume of the finished product (excluding water and salt) if the product and ingredients are liquid. If the liquid product is identified on the principal display panel or information panel as being reconstituted from concentrates, the calculation shall be made on the basis of single-strength concentrations of the ingredients and finished product; or

– For products containing organically produced ingredients in both solid and liquid form, dividing the combined weight of the solid ingredients and the weight of the liquid ingredients (excluding water and salt) by the total weight (excluding water and salt) of the finished product.

A recommendation was made by the NOSB back in 2001, but has not been acted on by USDA. There are guidelines given to certifiers back in 2002 (pertinent document section included below with red highlighting to note the verbiage used that is different from the NOP section) that use "ingredients" instead of "finished product". While this issue is only occasionally encountered in food products, it may be a more significant issue with PC products, which may have a significant change in weight (or volume) from mixed ingredients to finished product. This is technical correction that is included in the guidance document. It was agreed to modify 6.2 to include the E. Rosen's suggested recommendation.

NATIONAL ORGANIC PROGRAM
DRAFT COMPLIANCE AUDIT CHECKLIST
3/12/02

Calculating the percentage of organically produced ingredients

§205.302(a) Does the certifying agent **inform** its clients of the requirements for calculating the percentage of organically produced ingredients? Does the certifying agent have a verifiable procedure that ensures that clients calculate the percentage of all organic ingredients in an agricultural product labeled "organic," or that includes organic ingredients by the following method?

Guidance: Water and salt are always excluded from the formulations.

- For solids--divide the total net weight of combined organic ingredients at formulation by the **total weight of all ingredients.**

- For liquids--divide the fluid volume of all organic ingredients by the **fluid volume of all ingredients** if the product and ingredients are liquid.

Guidance: If the liquid product is identified on the principal display panel or information panel as being reconstituted from concentrates, the calculation should be made on the basis of single-strength concentrations of the ingredients and finished product.

- For products containing organically produced solid and liquid ingredients--divide the combined weight of the solid ingredients and the weight of the liquid ingredients by the **total weight (excluding water and salt) of all ingredients.**

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