

Tom Tiffany, (Speaker #4)
Monday, April 13, 2015 11:20 a.m.

Questions

1. Can you please provide a chart that shows the composition and name:

C18:1 cis Oleic

C18:2 cis Linoleic

Etc....

AOCS.org is a website that can be visited to obtain such information.

2. Does the production of palm oil endanger tigers in Malaysia/Indonesia?

The RSPO website is a good source of information for this type of information.

3. Is there any work to directly produce a CBE profile in palm oil itself?

CBEs are typical associated with the combination of exotic fats and palm mid fractions.

4. With the recent findings that saturated fats are at worst health-neutral, do you see any changes in the positioning of uses of different fats?

Palm oil, hydrogenated oils and various blends will all be used to achieve various levels of saturated fatty acids.

5. Are there any HSBO (IV<4) interesterified with the high-oleic materials used as the non-lauric CBRs replacing the prior trans fat non-lauric CBRs?

Works has been done in this area, though to achieve CBE type functionality palm mid fractions or lauric products may have to be incorporated into the blend.

6. What are the confectionery applications of HO oils and shortenings?

This can be used in cream centers, spray oils or nut roasting mediums.

7. Is the high-oleic/low-linoleic canola GMO?

Both GMO and non-GMO sources of high oleic/low linolenic canola oil are available.

8. Have other countries also regulated/labeled trans fats or banned them?

Denmark and other EU countries are starting to regulate trans fats, along with certain Latin American countries.

9. How is OSI measured and how is the test run?

Please reference AOCS method Cd 12b-92.

10. Are the unique seed plants you talked about GMO?

HO soybean oil is GMO; high oleic canola is available in non-GMO and GMO varieties.

11. Are you aware of any plant-breeding programs to retain beneficial traits that do not use GM techniques? This is out of my area.
12. Would increased oxidative facility allow for different packaging or is a dark/airtight package still required? This could be the case, though in many instances packaging practices are maintained to ensure shelf life.
13. What is the metal used in a railcar? What does steam do to vegetable oil? Caron steel is used in railcars. Steam if in direct contact with oil can cause hydrolysis.
14. Do you need nitrogen blanketing? Are railcars sanitized? Nitrogen blanketing is recommended for the storage of vegetable oils. Railcars can go through appropriate wash cycles if needed.
15. Regarding oxidation stability index, what value should confectioners be concerned about? Storage temperature of oil, exposure of oil to brass fittings or prooxidants.
16. What is the benefit of the mid-oleic sunflower oil (NuSun) over the high-oleic? NuSun is the dominant sunflower oil grown in the U.S. and is therefore more readily available.
17. Are the new high-oleic soybeans that you talked about a GM seed? Yes these are.
18. Can high-oleic canola or soybean oils be suitable replacements for palm mid-fractions in filling fats for candy? How is co-crystal compatibility? Not necessarily as these oils do not contain any solids.
19. Is algal oil GMO or non-GMO? Is it organic? This is a better question for representatives from Solazyme.
20. Are algal oils considered GMO-derived? This is a better question for representatives from Solazyme.
21. You talked about algal oils being amenable to “design” – can you produce an algal CBE-symmetrical TAG oil? This is a better question for representatives from Solazyme.
22. Does algal oil have any “marine” taste characteristics? No, they are relatively clean-tasting.

23. You thoroughly discussed oxidative stability and used frying frequently as an application example. How does a fat's/oil's structure relate to smoke point and heat stability? Is smoke point related to oxidation? Is it a concern for confectionery applications?

Smoke point is related to an increase in FFA. As the FFA increases the smoke point decreases.

24. Do you use GMO soybeans to produce high-oleic soy oil?

High oleic soybean are derived from soybeans with transgenic traits.

25. If the plant is GMO does the oil from it require labeling as GMO or coming from GMO (e.g. state labeling)? Can you analytically detect a GMO oil?

This really depends on state labeling laws. Potentially it can be detected in crude oils, though in RBD oils remnants of DNA are removed.