Changing or non Changing of Special Parameters During the Storage Time of "Extra Virgin Olive Oil" under Different Storage Conditions

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In a period of two years we had analyzed some extra virgin olive oils during their storage time in our lab. The olive oil was bottled in dark glass, original labelled and sold in shops in Germany and other EU countries. We started the test in our lab ca. 10 days after bottling under following conditions:

1.) Crop 2006/2007 for tests in 2007

- 100% Italian olive oil
- olive oil blend 50% Italy and 50% Greece
- Olive oil blend ca. 70% Spain, ca. 15% Italy/Greece each
- 100% Greek olive oil (PDO Cretan Sitia 100% Koroneiki)

Test conditions : Dark without UV light and cool = 10°C

Dark " and RT = ca. 20°C

Shop conditions with "semi light" - Outside UV and Neon light = ca. 20-22°C

2.) Crop 2007/2008 for tests in 2008

- same 4 different oils

Test conditions : Dark without UV light and cool = 10°C

shop conditions see above

Monthly we had analyzed following parameters :

- Sensoric with our in house panel group
- free fatty acid
- UV absorption
- Peroxide value
- 1.2-Diglyceride
- Pyropheophytine

CONCLUSION

-Under same conditions only the parameters of sensoric, 1.2-diglyceride and pyropheophytine show significant differences.

-The "best before date" is only good under storage in dark and cool conditions

-next tests will be done in 2009 under other conditions : dark without UV light by 15° and 25°C

Additional item, if possible, could be: some remarks to a "low budget" traceability system back from the shop to the supplier/bottling factory.

Which analytical parameters are enough?

Wanted?