

Questions that No-one is Asking

A.Dijkstra, St. Eutrope-de-Born, France

Formal training has the disadvantage that those being trained may insufficiently question the subject matter and this is in sharp contrast to the autodidact who can only learn by asking questions all the time. Sometimes, he may not get an answer and that need not be because the question is stupid, but because his peers have got used to there being no satisfactory answer and have therefore stopped asking that particular question by preferring the mythology involved. So it is about time to ask some assorted questions and where possible, suggest means of finding an answer:

- Why does the composition of the solvent used to extract oil from oilseeds affect the amount of oil being extracted and its phosphatide content?
- Why does a heat treatment (Alcon, Exergy, expander) increase the phosphatide content of the crude oil and decrease its non-hydratable phosphatide (NHP) content?
- Why does water degumming of crude oil remove relatively more magnesium than calcium?
- What is the mechanism of phosphatide removal by silica hydrogel and how to explain that it is enhanced by simultaneous soap removal?
- What is the mechanism of NHP-removal during alkali neutralisation?
- Could it be that the Long Mix neutralisation process as used in the US leads to insufficient removal of the pro-oxidants copper and iron and that this explains why oil tends to be less stable in the US than in Europe, especially when it contains linolenic acid?
- Could different deodorisation conditions explain this geographically determined anomaly?
- What happens during flavour reversion?
- Why is the oil in walnuts more stable than the walnut oil?
- How much oil is lost by saponification or hydrolysis during refining?
- What is the mechanism of colour fixation?
- Does the activity of interesterification catalysts depend on their counter cation?
- What is the chemical nature of the colour formed on interesterification catalyst activation?
- What is crystal memory? Does it exist?

However, when asking questions we should keep the Dutch proverb in mind according to which: "One fool can ask more questions than ten wise men can answer." On the other hand, exposing myths is half the fun and asking the right question often provides half the answer.