



Letters to the Editor

EPA 'Candidate List' to be available

Dear Sir:

Section 8(b) of the Toxic Substances Control Act requires that EPA establish an inventory of existing chemical substances. This inventory is extremely important, not only to EPA, but to industry since any chemical substance not on the list will be considered a new chemical substance and thus subject to the premanufacturing review process. The agency, therefore, believes it essential that industry respond to this inventory requirement. In this regard, we are making available to industry a "candidate list" of existing chemical substances to assist them in responding to the reporting requirements proposed by EPA in Federal Register Notices of March 9 and April 12. This list makes no distinction between toxic and innocuous chemicals.

A third Federal Register Notice, published Thursday, April 28, entitled "Notice of Availability" outlined procedures that industry can take to receive a copy of the "candidate list." Copies are available for inspection at the EPA Regional Office.

We would solicit your assistance in our task of disseminating this information. A number of copies of the Notice are attached for your use in this dissemination.

WILLIAM LIBRIZZI
Region II
Toxic Substances Coordinator
U.S. Environmental Protection Agency

(Editor's note: Persons desiring a copy of the April 28 Federal Register "Notice of Availability" may write to: Editor, JAOCS News, 508 S. Sixth St., Champaign, IL 61820.)

Acid delinting not commercial yet

Dear Sir:

There have been a couple of articles published recently in trade magazines, and possibly elsewhere, which have been misleading or misread, or read and not fully understood by non-technical people, or in some cases the article has not been fully read and digested and understood by technical people. These papers and/or articles have been on the subject of "Acid Delinting of Cottonseed."

This is to advise you that after our having done an extensive investigation, we have found that acid delinting on a commercial scale has at this time not been perfected to where it has been successful and/or acceptable, and/or economical, for use as a process to remove lint from cottonseed at a capacity anywhere near the tonnages required by a cottonseed oil mill under normal conditions with normal market values of the end products.

There are many unsolved problems in the process of acid delinting for cottonseed processing mills, and I will list some of these below:

1. From data given us, the cost of the acid needed in the process makes acid delinting uneconomical for the cottonseed mills as operated today.
2. No known market, to our knowledge, has been found for the product remaining, which would probably to some degree still contain the chemicals used in the

acid delinting process.

3. Meal and hulls from acid delinting are not acceptable to the Food and Drug Administration in the United States, we have been advised, because of the chemicals left in these products. We have been told by very reliable and unquestionable sources that, before acceptance of meal and hulls from acid delinting, many years of study on the effect of feeding these products to animals such as cattle and poultry would have to be made. Such studies would be extremely expensive, we are told, and no one has yet successfully come up with an answer to this very important problem, which in itself would eliminate acid delinting from being used in the cottonseed mills.
4. Acid delinting as we know it today would eliminate the recovery of first and second cut lint, which has many uses, some of which most of us are aware of. Second cut lint alone, most of which goes to the bleachers, is converted to pure cellulose pulp which is sold to the many users making literally hundreds of end products; in fact, second cut lint has more uses than any other product from cottonseed.

Selling prices of the basic products in the cottonseed industry, including the cottonseed itself as well as the cottonseed oil, first and second cut lint, cottonseed cake or meal, and hulls, will vary as all commodities to a large extent depend on the supply and demand. For instance, the price of second cut lint, which, except for the hulls, is sometimes the lowest priced product from the cottonseed, has sold within the last two years in the United States as high as 11 cents a pound, whereas there have been times in the very recent years when the price of crude cottonseed oil, normally the most valuable product, sold at this price and lower, but also has sold at times for almost three times this price.

In summary, what we are relating to you is the fact that these technical papers and articles on the *possibility* of installing an acid delinting process in the cottonseed processing mills, and which have appeared in various technical magazines published for the oilseed trade for the benefit of oilseed processors and chemists, have certain fallacies. These articles have included in them certain data which is theoretical and hypothetical, and/or is still in the talking stage or experimental stage, and may, or may not, ever become practical or acceptable in the cottonseed processing industry.

Also, flame delinting has been tried in the past in small capacity planting seed plants but problems occurred, such as the heat damaged germination of the seed and also would probably cause damage to the oil in the seed, as well as cause high oil losses in absorption in the hulls. The use of flame delinting also, of course, destroys the lint.

The author of one of the circulated papers on this subject has been Mr. S.P. Clark, Associate Research Engineer in the Food Protein Research and Development Center at Texas A&M University, College Station, Texas. When I questioned him with regard to the article, he was good enough to respond with a letter clarifying his article which appeared, among other places, in the *Oil Mill Gazetteer* and the *Journal of the American Oil Chemists' Society*. In substance his letter says that as far as he knew, acid delinting has only been performed on planting seed and these processes have been tested for oil mill use only on a small scale and experimental basis, and that they consider

this a legitimate way to prepare cost estimates *even though no actual plant is in existence*. He also states in part, "I do not know of any manufacturer who has a continuous acid delinting plant already designed and ready to sell."

In summary, we sincerely hope that this article will clarify once and for all to our many friends and customers in North America as well as around the world, who have become confused and have contacted Murray-Carver with regard to purchasing an acid delinting plant for a cottonseed oil mill. We also hope that this will show beyond any doubt that at this point in time we have researched very thoroughly and can find no one anywhere who is aware of a manufacturer of a continuous acid delinting plant already designed and ready to sell that could operate at a capacity required by cottonseed oil mills.

Also, we repeat — the mere fact that as it now stands, because of the chemicals left in these products, the acid delinting of cottonseed is not considered acceptable because of the basic fact that some of the end products of the cottonseed, such as meal and hulls, are for human or animal or poultry consumption.

JAMES C. ORR
President, Murray-Carver, Inc.
Dallas, Texas

Mr. Clark comments:

This is a reply to some of the questions raised by Mr. James C. Orr, concerning the acid delinting of cottonseed as an alternative to saw delinting. My paper comparing alternative processes contained brief, but I believe clear, statements of the present status of acid delinting (*JAOCS* 53, 684, Nov. 1976). Both acid processes (sulfuric and hydrochloric) are still in the experimental or conceptual stages. I also clearly stated that "any one contemplating a

conversion from saw delinting to an alternative process should prepare his own careful estimates of the comparative gross returns and partial production costs." My paper reported only on my performance of such comparisons on a preliminary basis to show methodology and probable relationships. If Mr. Orr is correct that the price of acid will now make acid delinting unattractive, this will be apparent in any new analysis.

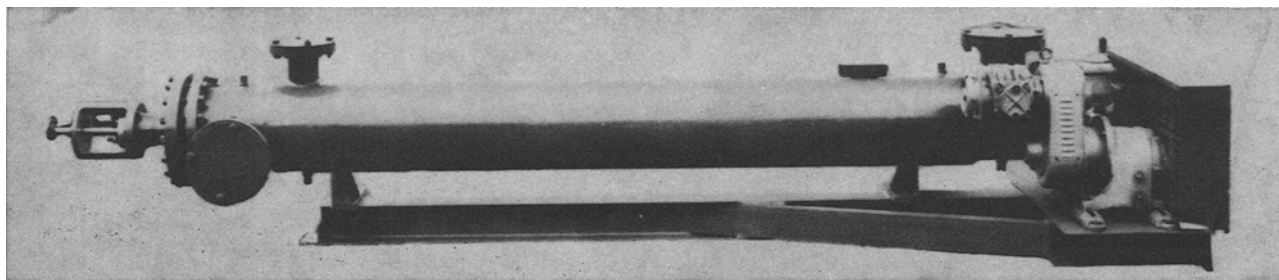
My paper stated "on the basis of limited data from only a few seed samples, oils and meals from both acid processes were judged to be equivalent in quality to these products from control seed." Since then we have completed a larger investigation, including comparison of oxidation rancidity of oils, and we have come to the same conclusion. I expect to submit the results of this work for publication.

I have no further data on the acceptability of hulls from acid treated seed beyond that already cited. Ammonium sulfate is listed as a feed ingredient in the Feed Industry Red Book. Levels above 2% equivalent crude protein from ammonium sulfate should carry working labels. (*Feed Industry Red Book*, 1975 ed., p. 59, Communications Marketing Inc., Edina, MN 55435). Certainly anyone contemplating the marketing of products from any new process should investigate whether the new products will be acceptable to his customers and at what prices. ●

Erratum

In "World fats, and oils production down one million tons (*JAOCS* 54:380A), a number in Table III, Fats and Oils: World Production and Exports was listed incorrectly. The figure for Total Production in 1977 should have been shown as 48,209. The correct number was used in the text.

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