

• Report on Fats and Oils

The Big Pawnshop

THE USDA LOAN PROGRAM is sometimes likened to a pawnshop. The analogy has considerable merit since both offer non-recourse loans; in both cases pledges are redeemable on repayment of loan plus charges; in both cases any "profit" or "loss" on sale as compared to the borrowed amount is for the account of the lender, not the borrower. We are now approaching the time of year when beans will have to start coming out of the "pawnshop." Of the final net bean loan entries of 121 million bushels, 18 were on purchase agreements and very few will be delivered at these prices. During April, bean prices were higher than they were during March, so I think that we can assume that beans were redeemed during April at a rate no slower than the net 6 million of March. This means that basis May 1 conditions, no more than 100 million bushels or so, will be delivered to the government. Prices for the month of May are as yet an unknown quantity, but whatever is redeemed in May will reduce the final default total even further.

At present, it appears that full season utilization will be in the area of 600 to 610 million bushels (crush 415 to 420; exports 145 to 150; seed, feed, etc. 40). This implies a carryout of 80 to 90 million bushels. In view of poor processor margins and premiums of old over new crop, not more than 10 million bushels will be in free hands. Therefore, unless these consumption estimates are much too low, the market is unlikely to have to come to the government sale price for more than 20-25 million bushels—or less than one month's consumption. That last month will be September with new crop supplies beginning to move. If final defaults are much less than 100 million, then the market may have to come to the government for very little indeed. Therefore, it behooves us to take a look at the prospects for wide-scale redemptions at current prices.

We have tried with the accompanying table to draw a very rough sketch of the prospects. The table, like the loan program, is a bit involved and requires a little explanation. First, we reduced the current track bid by 5 cents for elevation to make the beans FOB cars (column #3). The farmer does not have to pay this elevation charge if he defaults. Then we reduced the bid again because a commercial bid does not include certain moisture and foreign material premiums that the Government Loan Program allows (column #4). It is true that many farmers don't get the full scale of excessive loan premiums, but this will be partially allowed for by the fact that their beans when sold commercially will grade off anyway at severer than government discounts. The sixth column is the spread that militates against delivery on purchase agreements as mentioned above. The seventh column is the interest that the farmer must repay if he redeems. It will vary in amount as some farmers entered early and have accumulated against their pledges a considerably larger amount of interest than those impounded somewhat later. The last column then is the approximate final incentive to redeem. You will note

IS YOUR PRODUCT ON THIS LIST?

Steinlite owners quickly determine the fat content of these products in 10 to 15 minutes.

- ★ Frankfurter emulsion
- ★ Corn chips
- ★ Luncheon meat
- ★ Bologna emulsions
- ★ Deviled ham
- ★ Park sausage
- ★ Flax
- ★ Ground beef
- ★ Fried noodles
- ★ Copra
- ★ Potato chips
- ★ Ground pork
- ★ Soybeans
- ★ Trimmings
- ★ Peanuts
- ★ Corn meal

- ★ Sesame seed
- ★ Dog food
- ★ Cottonseed
- ★ Cabbage seed
- ★ Fishmeal
- ★ Corn germ
- ★ Castor beans
- ★ Pumpkin seed
- ★ Mink food
- ★ Mafura beans



MODEL 300-LOS
FAT AND OIL TESTER

Steinlite

Write today for further information on the Steinlite Model 300-LOS, giving information on your product. Address your inquiry to the attention of the Fat and Oil Dept.,

FRED STEIN LABORATORIES, INC.
ATCHISON, KANSAS

that all the way through we have used the widest possible spreads which is necessary from an analytical point of view. More practically speaking, this is not the way the spreads work out since the low loan areas usually have the low side of the tabulated cash market bid spread and the high loan areas the high side. Also, we have added/subtracted the interest and premium ranges at their widest/narrowest and this adds to widening of the incentive spreads. In general, the table implies that there is a slight incentive toward continuing redemptions but it is not large and is not general. The incentive, by the way, will be the same for both elevator- and farm-stored beans, since once the farmer puts beans in the elevator he is stuck for storage whether he defaults or redeems.

However, there is one factor that might make farm redemptions slower than elevator redemptions. That is, farmers are allowed to cancel farm loans by repayment any time

(Continued on page 17)

State	#1 Loan	#2 Commercial Track Bid #1	#3 Gross To Farmer	#4 Potential Premium Loss Any Commercial Sale	#5 Net After Premium Loss	#6 Spread Against Purchase Agreement Delivery	#7 Loss From Repaying Interest	#8 Net After Interest Loss	#9 Incentive To Redeem
ARK	229	250	245	3-6	239-242	+10 to +13	3-5	234-239	+5 to +10
ILL	230-37	250	245	3-6	239-242	+2 to +12	3-5	234-239	def. 3 to +9
IND	228-35	244-48	239-44	3-6	233-241	def. 2 to +13	3-5	228-238	def. 7 to +10
IOWA	223-31	235-240	230-35	3-6	224-232	def. 9 to +9	3-5	219-229	def. 14 to +6
MINN	216-225	230-235	225-230	3-6	222-224	def. 1 to +6	3-5	217-221	def. 4 to +3
OHIO	228-232	245	240	3-6	234-237	+2 to +9	3-5	229-234	def. 7 to +6

In column #6 a deficit figure implies that beans will tend to be delivered on purchase agreements and a plus figure implies that they will not tend to be delivered. In column #8 a deficit figure implies that beans will be defaulted on loans and a plus figure implies that they will be redeemed. There is no way to tell whether the beans remaining under purchase agreement or loan are in counties where the "deficits" are, or in counties where the "pluses" are. Probably one has to say that the "average" prevailing situation is a rough split of the deficit-plus range.

Canada Calls . . . Convention Leaves U.S.

"Canada Is Calling" is the theme set for the AOCS Fall Convention next October 1-3, in Toronto. For the first time in this Society's history, the semi-annual Convention will be held outside the United States. Because of the international flavor created by the coming event, a program with appropriate emphasis upon the international setting is being developed for the enjoyment, and to the



General interest in the coming Toronto Convention is vividly exemplified when one notes that far-flung areas of the United States are represented by the four people caught at Toronto's exhibit at the New Orleans Convention in May. There are: (left to right) Audrey T. Gros, New Orleans; T. H. Hopper, Higbee, Missouri; W. A. Welborn, Washington, D. C.; and L. O. Leenerts, Los Angeles, California.

advantage, of all who will attend. A very active effort to gain the presentation of papers by authors from Great Britain, Sweden, New Zealand, South Africa, and other countries, is now in process. Program Committee Chairman H. W. Lemon is most optimistic about the possibility of world-wide participation in this landmark event.

Fats in Nutrition Symposium Scheduled

Mr. Lemon's Committee, made up of B. M. Craig, R. P. A. Sims, and Keith Clark, have announced plans for a symposium on the role of fats in nutrition, and a panel discussion associated therewith. Dr. Beveridge of Queen's University, Kingston, Ontario, and Dr. King of the Nutrition Foundation are scheduled to participate. Though his acceptance has yet to be verified, Dr. Thomason of the Unilever group is also expected to take part. This session is tentatively planned for Monday afternoon, October 1.

Technical Scope Extremely Broad

The Toronto Program Committee invites the presentation of papers in the areas of Biology and Nutrition, Chemicals and Fatty Acids, Drying Oils and Paints, Fats and Oils, Soaps and Detergents, Technical Safety, and Engineering. Authors please note that abstracts consisting of 100-300 words should be sent to the Program Committee Chairman just as soon as possible; and in any case, not later than July 27th.

MR. H. W. LEMON
Department of Biochemistry
Ontario Research Foundation
43 Queen's Park Crescent, East
Toronto 5, Ontario, Canada

National Program and Planning Committee Active

The National Program and Planning Committee, Soap and Detergents Area, in conjunction with the Toronto Committee, has called for papers in that specific area. The following subjects are suggested:

- Biodegradability of Detergents
- Synthesis and Evaluation of Surfactants
- General Topics on Detergents

In their official request for contributions, Committee members A. J. Stirton, M. E. Ginn, and John Morrisroe emphasized the heretofore listed subjects, but welcomed papers of a more general nature. The presentations should cover original work, and should be free of advertising or promotional material. Abstracts of the specifications indicated above should be sent to Mr. Lemon.

• New Literature

TECHNICON CONTROLS, INC., Chauncey, N. Y., has a new data sheet available describing the methodology for continuous automatic determination of Alkyl Benzene Sulfonates. Copies can be obtained upon request.

U. S. INDUSTRIAL CHEMICALS Co., 99 Park Avenue, New York 16, N. Y. A 46-page booklet, entitled "U.S.I. Ethyl Ether," details the chemical's physical and physiological properties.

RESEARCH SPECIALTIES Co., "Chromatofacts" for March-April 1962 discusses a new technique of electron capture in gas chromatography. Write: 200 S. Garrard Blvd., Richmond, Calif.

RESEARCH SPECIALTIES Co., 200 S. Garrard Blvd., Richmond, Calif., has compiled a 12-page comprehensive bibliography on Thin-Layer Chromatography. This brings the citations up to date as of December, 1961 with 167 entries.

(Continued on page 40)

N³/C 14

**Immediate Delivery — Purity Demonstrated
by Thin Layer and Gas Chromatography**

Triolein-Carboxyl-C¹⁴
\$60/100µc. \$600/mc.

Oleic-1-C¹⁴ Acid
\$40/100µc. \$400/mc.

Acetyl Coenzyme A-Acetyl-C¹⁴
\$50/5µM \$75/10µM

Ask for catalog of complete line of TRACERLAB
RADIOACTIVE CHEMICALS. Call Dr. Thos. F.
Sullivan (collect) at TW 4-6600 or write Tracer-
lab, Dept. B, 1601 Trapelo Road, Waltham
54, Massachusetts.

Tracerlab

A DIVISION OF LABORATORY FOR ELECTRONICS, INC.

Literature Briefs

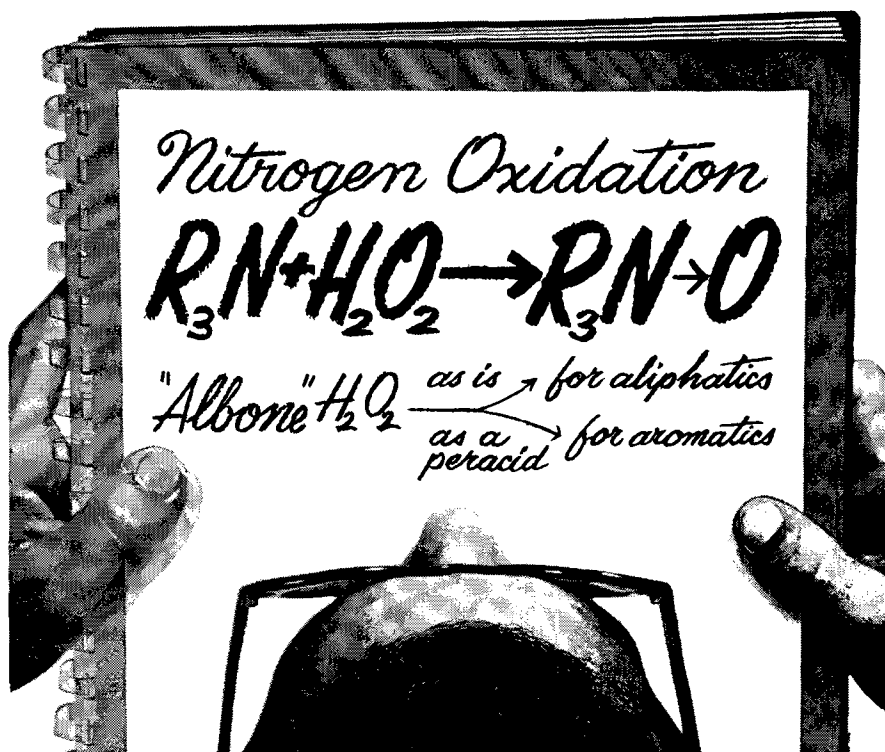
Hydrogen Peroxide in Chemical Manufacture A recent paper reviews the more important chemical reactions of hydrogen peroxide and their commercial significance. Among the reactions discussed are epoxidation, acylation, and hydroxylation. (*Chem. & Ind.*, 12-18 (1962))

Reaction of Hydroperoxides with Amines and Mercaptans Alkylamines have been found to react with hydroperoxides at room temperature to form alkylammonium peroxide salts, a new class of compounds. The peroxide salts react rapidly with aromatic mercaptans to yield the corresponding disulfides, alcohols, and water and release the alkylamine. Amine-catalyzed oxidation of mercaptans by hydroperoxides may proceed by this route. (*J. Org. Chem.* 26, 3969-3974 (1961))

Manufacture and Uses of Peracetic Acid The manufacture of peracetic acid by acetylation of hydrogen peroxide with acetic acid is described in a review article. Chemistry of the reaction is discussed. Procedures for *in situ* formation of peracetic acid from hydrogen peroxide in epoxidation systems are described and the economic advantages of *in situ* processes are cited. (*Chem. & Ind.*, 62-69 (1962))

Amine Oxides as Foam Stabilizers Tertiary amine oxides such as dimethyldodecylamine oxide have been found to be effective foam stabilizers for use in making foam rubber articles from mechanically frothed latex. Incorporating 0.25-0.50 parts of amine oxide per 100 parts rubber solids along with the usual gelling and vulcanizing agents reportedly prevents collapse of the froth during gelation, reduces shrinkage in the mold, and improves the foam structure of the final product. (U.S. 2,755,258, July 17, 1956)

Hydrogen Peroxide as an Odor Improver Addition of 200-2,000 p.p.m. hydrogen peroxide is reported to eliminate the odor of phosphine present in sulfoalkyl esters of fatty acids which have been manufactured by a route involving a phosphorus halide for acyl halide preparation or a phosphorus-containing compound as catalyst. (U.S. 2,999,871, September 12, 1961)



Amine oxidation with "ALBONE" produces new products for new applications
(Hydrogen Peroxide)

Amine oxidation with hydrogen peroxide is old textbook chemistry, but these classical reactions are starting to "pay off" anew in the chemical industry. An example is the growing interest in amine oxides for detergent, pharmaceutical and textile applications.

Aliphatic tertiary amines can be oxidized smoothly to the amine oxide by direct reaction with "Albone" hydrogen peroxide. Aromatic tertiary amines require reaction with a peracid prepared from hydrogen peroxide. These are some of the ways oxidation of nitrogen compounds is finding greater commercial potentiality with Du Pont's "Albone" hydrogen peroxide.

As a pioneer producer of hydrogen peroxide, Du Pont has developed many new and economical processes to help industry use hydrogen peroxide more profitably. For example, as part of this

continuing program, Du Pont makes available licenses to operate under U.S. Patents 2,910,504* and 2,919,283, which are concerned with the preparation of peracetic acid and *in situ* epoxidation in the presence of cation exchange resins. These licenses may be obtained for one dollar upon written request to Du Pont.

Du Pont will be glad to share its years of experience to help you profitably use "Albone". If you'd like to discuss possible uses, call your Du Pont representative. He can supply you with more information and your personal copy of Du Pont's new 142-page book, "Hydrogen Peroxide in Organic Chemistry" (available in the United States and Canada only). E. I. du Pont de Nemours & Co. (Inc.), Electrochemicals Department, Peroxygen Products Division, Wilmington 98, Delaware.

*Basic patent issued to Du Pont, on peracetic acid-resin catalyst system.

Make Du Pont your most reliable source for Peroxygen Products:

ALBONE® hydrogen peroxide 35%, 50%, 70%, 90% · PERONE® hydrogen peroxide 30%, 35%, 50% · OXONE® monopersulfate compound · PERDOX® sodium borate perhydrate · sodium perborate tetrahydrate · SOLOZONE® sodium peroxide · zinc peroxide · calcium peroxide.



Better Things for Better Living
... through Chemistry

If you process fat-containing materials this information on antioxidants can help you

Technical literature on the evaluation, selection, use and analysis of fat-soluble antioxidants is available from Eastman, the leading manufacturer of antioxidants for use in food and feed:

- 1 Tenox antioxidants for *edible fats*
- 2 *Mechanisms of fat oxidation*
- 3 Tenox antioxidants for more effective *food packaging materials*
- 4 *Colorimetric analyses of phenolic antioxidants* in foods and packaging materials
- 5 Tenox antioxidants for the *fishing industry*
- 6 Tenox food-grade antioxidants for *poultry feeds*
- 7 Effective stabilization of *inedible animal fats* with Tenox food-grade antioxidants

If you currently use antioxidants in your products, the information in these bulletins can help you assess whether you are, indeed, using them in optimum fashion. If you do not presently employ these useful agents, you may discover just how they can improve your products or even open new avenues of development for you. You will discover, too, how the antioxidant specialists in Eastman's Food Laboratory are able to help advise you on the choice and use of Tenox antioxidants for your particular products. Return the coupon below indicating the bulletins you want. They are free.

Tenox[®] Eastman
food-grade
antioxidants

Chemicals Division, EASTMAN CHEMICAL PRODUCTS, INC.
subsidiary of Eastman Kodak Company, KINGSFORD, TENNESSEE

Gentlemen:

Please send me the general information bulletin on the properties, use and evaluation of Tenox food-grade antioxidants, and the following special bulletins:
(please circle number)

1 2 3 4 5 6 7

Name _____

Position _____

Company _____

Address _____

City _____

Zone _____

State _____

Spring Convention Highlights . . .

(Continued from page 11)

Quarter, followed by a walking tour of that historic area; and a sightseeing trip of New Orleans harbor on the Yacht "Good Neighbor," courtesy of the Board of Commissioners of the Port of New Orleans.



After completing a bus tour of New Orleans' famous Garden District, the ladies in attendance at the Spring Meeting enjoy a buffet luncheon at the Pontchartrain Hotel.

Behind-the-Scenes Activities Never Ended

Though unnoticed by many, a steady stream of important activities was conducted throughout the Convention, as leaders from all phases of AOCS operations met to plan the coming year's work. Aside from two lengthy meetings of the Governing Board, the following committees convened: National Program, Uniform Methods, Journal, Safety, Advertising, Smalley, Examining Board, Color, Bleaching, Gas Chromatography, Spectroscopy, Fat Analysis, Cellulose Yield, Crude Fiber, Urease, Dispensable Protein, Refining, Statistical, and USDA Lie. Chem.



Completing his final official act as AOCS President, A. R. Baldwin turns the fabled "Tomahawk" gavel over to his successor, A. E. MacGee (right).

A Fine Meeting Ended, and a Fine One to Come

A review of the foregoing should bring fond memories to the many who enjoyed the New Orleans Meeting, and possibly just a bit of envy to those unable to attend. October 1st will witness a reconvening of the Society at its fall Meeting in Toronto. Have you made your plans to attend?

Short Course Just Three Weeks Away! Registration Closes July 1.

Registrations for the 1962 Short Course, to be held July 9 to 11 at Lehigh University, Bethlehem, Pennsylvania, are running substantially ahead of schedule. Those who desire to attend this informative series should note that barely two weeks remain in which to make the necessary arrangements.

A detailed review of the program, and interesting comment on the features thereof, are to be found in the April and May issues of this Journal.

Registration fee for the Course is \$65.00, payable in advance to the Society, in care of National Headquarters. Student fee for regularly matriculated students is only \$16.50, also payable in advance. Your room will cost \$2.50 per day (\$3.00 for single occupancy), and the cost of all meals totals \$25.00. Room and board are payable at time of signing in at Lehigh U.

Concern Voiced Over Title of Course

It is interesting to note that considerable concern has been voiced by Program Chairman W. C. Ault and his Committee over the rather narrow scope of the title of this year's Short Course. "Developments in Fat Chemistry," stated Dr. Ault, "does not suggest the very important fact that a good deal of emphasis is to be placed upon the preparation and properties of fat derivatives. It is sincerely hoped that interested parties will carefully review the program of lectures to be given."

University of Minnesota Plans Institute on Information Retrieval

The University of Minnesota, through its Library School and its Center for Continuation Study, announces an Institute on Information Retrieval, to be held September 19-22, 1962. The aim of the Institute will be to present a concise picture of the present status of information retrieval, with consideration of current devices and techniques, their relation to traditional library and indexing procedures, and probable lines of future development.

Papers to be presented by representatives from industry, government and the library world will discuss the theoretical and practical considerations involved in the choice of efficient and effective methods for the organization of personal, library and technical information center files. Exhibits and demonstrations of "non-conventional" methods, including edge-notched cards, punched cards and computers, will concentrate on the problems raised by the increasing demands of specialization and inter-disciplinary research in scholarly disciplines.

The Big Pawnshop . . .

(Continued from page 13)

up to actual issuance of loading orders by the USDA. These load orders are not likely to be issued immediately since the USDA will have enough to do merchandising elevator beans. Also, the USDA is allowed 60 days free storage by the producer. Therefore, in late May a penny premium to the farmer with warehouse beans is better than nothing as he is running out of time. The farmer with farm-stored beans might have much more time and might ignore a penny especially since he knows that any resale beans will be priced higher than his "breakeven" by virtue of the USDA adding automatically 11½ cents plus elevation to the applicable county loan. The resale price might even be higher if the USDA tries to recover moisture and F.M. premiums, and post-June 1 storage.

Therefore, the farm-stored beans probably hold the key to final total redemptions and therefore the key to late season bean market action. Things will be busy in the pawnshop.

JAMES E. McHALE, Merrill Lynch,
Pierce, Fenner & Smith, Inc.

NEW / SARGENT OIL STABILITY APPARATUS

FOR THE DETERMINATION OF
RELATIVE STABILITY OR
KEEPING QUALITY OF LARDS,
FATS, AND OILS IN
ACCORDANCE
WITH A.O.C.S.
METHOD CD 12-57.



- improved design
- all electronic proportioning control system
- no relays in regulating circuit
- variable temperature
- accuracy of regulation and uniformity $\pm 0.05^{\circ}\text{C}$
- fast recovery to accommodate incremental loading
- space saving condensed form

S-63945 OIL STABILITY APPARATUS—
Peroxide Method, Thermonitor Controlled, Sargent
..... **\$660.00**

S-63950 OIL STABILITY APPARATUS—
Peroxide Method, Mercurial Regulator Controlled,
Sargent..... **\$550.00**

For complete information, write for Booklet 62.

SARGENT SCIENTIFIC LABORATORY INSTRUMENTS • APPARATUS • SUPPLIES • CHEMICALS

E. H. SARGENT & CO., 4647 WEST FOSTER AVE., CHICAGO 30, ILLINOIS
DETROIT 4, MICH. • DALLAS 35, TEXAS • BIRMINGHAM 4, ALA. • SPRINGFIELD, N. J. • ANAHEIM, CALIF.