

shippers have sought to buy commodities from other origins to ship to Russia. They have the shipping space already secured and must use it or suffer a loss in cancelling it or selling it to another party. For example, corn for March loading from Brazil went from 22 cents per bushel over futures pre-embargo to 65 cents over the following week. Soybeans improved by 15 cents in the same time. This has tilted the demand back to U.S. origin for destinations other than Russia and has helped keep U.S. markets from going lower.

We expect this pattern to continue. The shock has been absorbed. It may not be possible to see significant strength for sometime to come, while waiting to see how all the foregoing and additional developments come to pass. But it does appear that the weakness that could have been immense originally will not be so profound after all.

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## Who will hold the carryover?

Harvest in the United States is complete. The November crop report was 2,235 million bushels, or 60.9 million tons. A semi-final report will be issued in mid-January. Most observers expect a further upward revision to about 2,250 million bushels, or 61.2 million tons.

The last USDA estimate of carryover next Aug. 31 was 400 million bushels or 10.9 million tons. Consumption rates so far have been larger for domestic crush, as expected, but exports only equal with last year, which is below anticipation. We expect this latter figure soon will begin to perform much better as Europe has been concentrating on crushing sunflower seed that could not be shipped earlier from Duluth due to labor problems.

Nevertheless, there is now the anticipation that the carryover figure must be increased when revised again in late January, if not sooner. A figure of 440 to 500 million bushels is generally accepted. This would be 12.0 to 13.6 million tons.

Whether it is 10.9 or 13.6 million tons is only academic. It is evident that supply exceeds probable demand by a wider margin than normal. As a consequence, futures price relationships between the various months show a development that is not usually seen. There is a discount of old crop months under November, which is the first new crop month in the United States. Thus, the market is saying there must be compensation to help pay for the costs of storing the surplus.

These "spreads" between various months are important to watch. They tell a lot about developments in commercialization of crop. Recently, the July has been holding at about 60¢ over January, (six months), but November has been only 18¢ over July (four months). The July/November spread could easily widen to 40¢ — the same ratio as January/July — and could go to 60¢, which is approximately equal to total cost of storage, insurance and interest on the investment.

Whether it does will be determined by three things: (1) size of inventory for delivery purposes at Chicago and Toledo, (2) size of the South American crop and (3) strategy in merchandising the South American crop. Most likely the inventory at Chicago and Toledo will remain large, so the developments in South America will be of prime importance.

### Argentina

Planted area should be 25% larger than last season. There has been some delay due to rain so that by mid-December still 25% was not sown. Planting can continue to Jan. 15. With full planting, the crop should reach 4.5 to 5.0 million

tons vs. 3.8 million last season. If not, then the increase could be smaller.

Processing facilities are being expanded slowly. Some initiative has been provided by the government which allows a 10% rebate on exports of soybean oil and others. But for this season, probably one million tons will be crushed vs. 750,000 last season.

Newly planted area continues to expand, especially in the north. Some cotton and groundnut acreage was shifted to soybeans. In the central zone, some acreage went back to grass due to improved beef prices.

Export facilities may now be built by the private sector, as this authorization was made last November. This should be of great assistance in promoting export trade.

### Brazil

Acreage is projected to be 7% above last season. Production last season was seriously crippled by drought so only about 9.7 million tons was harvested. This season a crop of 15 million tons is forecast by government officials. But producer and industry sources generally agree the crop cannot exceed 14 million tons, and some expect about 13 million tons.

Thus far, there is adequate moisture, even a surplus in some important areas. Planting in Parana (about 5 million tons) was completed with little delay by Dec. 7. Planting in Rio Grande do Sul (about 6 million tons) is always a little later with about 20% still to be sown as of mid-December. This factor may become critical. Rains every two or three days were keeping farmers from getting into the fields. If planting is delayed to the end of December, yields from those later plantings will be reduced. Maybe some acreage would not be planted at all.

Germination in Rio Grande do Sul fields already planted is excellent and early growth very good. Parana has experienced irregular germination, so that yields cannot be expected to be excellent, but could be good.

Last season began about the same way: too wet in Rio Grande do Sul, but mostly a good beginning. Early predictions in December that year pointed to a crop of about 13 million tons, with some saying 14 million and a few even 15 million. Then came dry weather in January and February.

A weather consultant in Montevideo is indicating deficient moisture again for approximately the same period. But that is based more on historical statistical probabilities than current meteorological conditions. Our studies of major drought patterns indicate no major problem this season, though some localized, lingering dryness could cause minor problems.

Continued from previous page.

### Marketing policies

Both sellers and buyers have been waiting to see how the crop will develop in South America. Last season, sellers felt they sold too early since prices advanced later due to drought and other factors. Buyers are hoping the weather will be good and prices lower later. This simply means there is a lot of business to be done in a short time if most of it is to be accomplished as weather developments in January and February unfold. This probably means a realignment of spread relationships between months more than any significant change in basic price level.

### Storing or merchandising the surplus

As can be seen from the figures cited previously, the projected carryover in the United States approximately equals the probable crop in Brazil. Therefore, someone will have to take the responsibility of carrying inventory beyond the next harvest in the Northern Hemisphere. Traditionally, that task has been delegated to the farming and marketing sectors of the "Norte Americanos." This is not always easy to do, but neither is it intolerable because of the hedging function of Chicago futures. Therein lies the "alternative market" opportunity, until the surplus can be absorbed by the physical market. Then the futures hedge is liquidated.

But times have changed. Now the South American farming and marketing sectors can also effectively use the hedging facilities in Chicago. This simply means that they can share the responsibility for carrying the surplus inventory. At this writing they can sell July futures at 60¢ above the spot month which is January. Later the hedge can be moved forward to November which could be 40¢ or maybe even more over July. Even later, it is likely that as more distant months in 1981 begin trading, there can also be attractive premiums over November to which the hedge can be moved again.

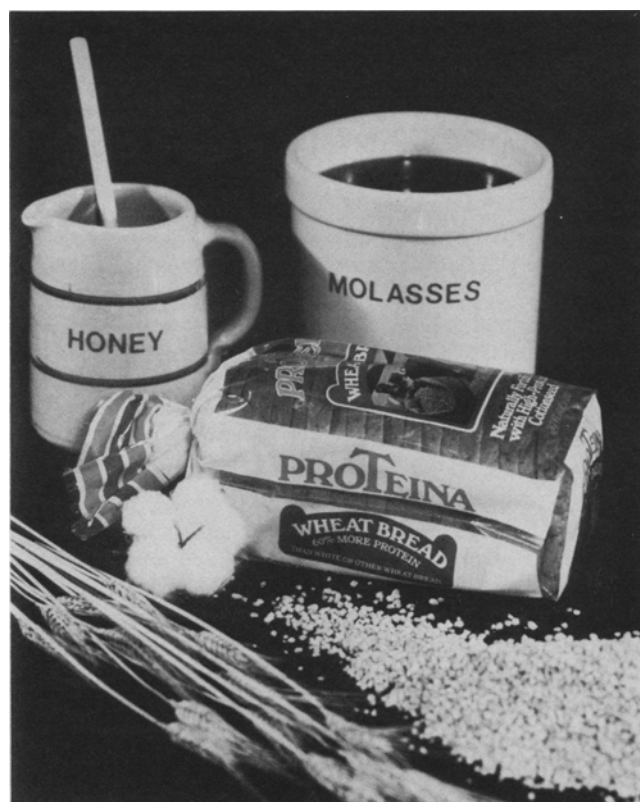
No longer should it seem necessary for the South Americans to liquidate all their crop in just a few months while all the surplus is held in the United States. The last time there was a surplus in both continents was 1976. At that time, Brazil announced plans for an export subsidy to be certain that all the crop would move into consumption. The plan was not put into effect once it was realized that it was not beneficial to Brazil's national economy. But international traders wonder if the new government might try something like that again. We have been assured that they will not. Certainly, it is not necessary since a viable futures market hedging opportunity is available.

Demand will make good growth under conditions of surplus production. It always has and in reality can never be saturated except for brief periods. Therefore, prices will drop significantly only if producers engage in aggressive selling competition with only the short term view in mind. If they can be patient, and use hedging opportunities, much better prices can be realized.

*Dave Bartholomew  
Dec. 17, 1979*

### Procon office moved

Procon International Inc., an international engineering and construction subsidiary of UOP Inc., has moved its eastern regional office from New York City to Fort Lee Executive Park, One Executive Drive, Fort Lee, NJ 07024.



### New bread features cottonseed protein

Cottonseed protein derived from glandless cottonseed has been incorporated in a new consumer bread being marketed throughout Texas as "Proteina Wheat Bread."

The use of cottonseed increases protein content to 160% that of enriched wheat bread, according to the producers, with an average serving (2½ slices) of Proteina providing eight grams of protein, or 10% of the U.S. recommended daily allowance; average daily consumption provides 40% of the recommended daily allowance.

The bread is baked by Mrs. Baird's Bakeries of Fort Worth under license from Feuer Food Products Inc. of Northfield, Illinois. Feuer says it is awaiting results of the Texas effort before deciding whether to market the bread elsewhere and whether to expand the line of cottonseed protein products.

Rogers Delinted Seed Co. of Waco provides the bakery with cottonseed protein in the form of roasted, nut-like kernels. The nut-like product was developed from glandless cottonseed by food researchers at Texas A&M University. Cottonseed kernels are listed fourth on the bread wrapper list of ingredients, after wheat flour, water and dairy whey.

At present, the bread sells at a premium over ordinary bread. Increased sales volume could reduce the difference. The bread is described as having a mild nut-like flavor imparted by the toasted cottonseed ingredient.

Texas' high plains areas is where most glandless cottonseed is grown. □

## Acids, in thousand pounds

Month: October 1979 Issued: Dec 17, 1979 No. of manufacturers reporting: 16	Disposition										
	Final goods, inventory on	Production	Receipts	Losses	Carry-over	Distillation	Distillation	Distillation	Distillation	Distillation	Final goods, inventory on
<b>SATURATED</b>											
Stearic acid 140-90% stearic content	8,221	14,325	1,492	6,222	SP 635 DP 3,647 TP 3,886	71	85	14,546	9,492		
Hydrogenated animal and vegetable oils											
60 C max. titer & min. I.V. 5	6,539	9,566	...	37	8,116	...	294	8,447	7,658		
57 C min. titer & max. I.V. <5	4,572	12,283	2,728	7,205	8,161	...	3	15,369	4,214		
Min. stearic content of 70%	1,948	2,475	...	938	1,646	6	40	2,630	1,793		
High palmitic (over 60% palmitic, I.V. max. 12)	954	617	...	324	643	57	35	1,059	512		
Hydrogenated fish & marine mammal fatty acids	429	471	...	...	329	...	...	329	571		
Lauric-type acids (I.V. min. 5, Sapon val. min. 245, etc. coconut, palm kernel, babassu)	4,672	7,195	72	2,556	3,863	1,317	...	7,736	4,203		
Fractionated fatty acids (C19 or lower, inc. capric Lauric and/or myristic content of 55% or more)	817	3,264	...	4	1,950	75	1,084	3,113	988		
	2,434	1,344	44	439	648	310	1	1,398	2,424		
<b>Total - saturated fatty acids</b>	<b>30,586</b>	<b>51,540</b>	<b>4,336</b>	<b>17,725</b>	<b>33,524</b>	<b>1,836</b>	<b>1,842</b>	<b>54,627</b>	<b>31,835</b>		
<b>UNSATURATED</b>											
Oleic acid (red oil)	13,704	15,722	333	7,098	ND 308 SD 8,943 MD 2,446	452	924	16,071	13,688		
Animal fatty acids other than oleic (I.V. 36 to 80)	4,019	16,649	...	2,250	8,436	679	4,409	15,784	4,884		
Vegetable or marine fatty acids (I.V. max. 115)	...	29	25	...	28	...	...	28	26		
Unsaturated fatty acids (I.V. 118 to 120)	4,462	3,812	13	497	3,218	...	1,350	5,065	3,222		
Unsaturated fatty acids (I.V. over 120)	2,137	2,362	78	78	1,773	25	278	2,154	2,418		
<b>Total unsaturated fatty acids</b>	<b>24,317</b>	<b>38,574</b>	<b>449</b>	<b>9,931</b>	<b>21,044</b>	<b>1,166</b>	<b>6,861</b>	<b>38,102</b>	<b>24,238</b>		
<b>TOTAL all fatty acids, saturated &amp; unsaturated</b>	<b>54,903</b>	<b>90,114</b>	<b>4,785</b>	<b>27,656</b>	<b>54,568</b>	<b>3,002</b>	<b>8,503</b>	<b>93,729</b>	<b>56,073</b>		

SP - single pressed; DP - double pressed; TP - triple pressed  
ND - not distilled; SD - single distilled; MD - multiple distilled

## Tall oil fatty acids & statistics, in thousand pounds

Month:	2% & OVER ROSIN CONTENT		LESS THAN 2% ROSIN CONTENT	
	OCTOBER	Percent change from SEPT 1979	OCTOBER	Percent change from SEPT 1979
Stock on hand OCTOBER 1, 1979	13,150	- 4.7	10,638	+ 68.2
Production	21,550	+ 45.8	17,285	- 1.7
Purchases & receipts	423	+ 185.8	0	0
Disposition				
Domestic Export	18,100 1,682	+ 36.0 - 25.5	13,999 3,631	+ 10.6 + 261.9
Total disposition	19,782	+ 27.1	17,130	+ 29.1
Net disposition*	19,359	+ 26.5	17,130	+ 28.1
Total stock OCTOBER 31, 1979	15,341	+ 16.7	10,793	+ 1.5

\* Net - Less purchases & receipts.  
Definition: Fatty acids fractionated from crude tall oil having a minimum of 90% fatty acids, not including rosin acids. Primary fractions containing less than 90% fatty acids are classified as distilled tall oils.

## Margarine microcomputer developed

A microcomputer to specify use of fats and oils in margarine based on desired consistency and raw material prices has been developed by the Swedish Institute of Surface Chemistry and C.E. Basts Ltd. of Denmark.

Vagn Jespersen, director of research for the Danish firm, said the computer will determine appropriate mixtures of fats to meet product quality standards, taking into account daily price changes of various oils and fats.

Phil Cand and Inga Wilton directed work at the Swedish Institute. □

## New Ross Chem plant completed

Ross Chem Inc. has announced completion of new manufacturing and laboratory facilities in Mountain Inn, South Carolina, to produce antifoams/defoamers for use in food contact products, some edible foods and pharmaceuticals. □

## New olefin manufacturing process announced

A new olefin manufacturing process, Thermal Regenerative Cracking (TRC), has been announced by Gulf Oil Chemicals Co., Gulf Canada Ltd. and Stone & Webster Engineering Corp. A \$15 million pilot demonstration plant has been built in Baytown, Texas. The new process reduced ethylene production cost by up to 20%, the firms said. □

# Publications

## Book reviews

*Techniques for the Retrieval of Chemical Information*, edited by A.K. Keng, (Pergamon Press, 1978, 121 p., \$18.75).

This book represents the proceedings of the IUPAC symposium on Techniques for the Retrieval of Chemical Information, held in London in November 1976. The main lectures were apparently published in "Pure and Appl. Chem." Vol. 49 1977, before being reprinted in the present volume.

In this age of computers, it is nice to contemplate their use to lighten the burden of chemical searches. The literature of chemistry has become so complex and cumbersome that this task is very time consuming and sometimes less than rewarding. Even though this book is now out of date, it contains useful information concerning the various data bases.

A listing of the chapters would not be informative in this review, but several chapters are noteworthy: those which discuss the Index Chemicus registry, retrieval and storage of mass spectral information, and a system for retrieval of infrared spectral data were particularly interesting to this reviewer. This was an informative little book; I look forward to the day when there is an affordable system ter-

minial at my desk, as suggested by E. Garfield. This is feasible and hopefully on its way to the scientist.

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*Topics in Automatic Chemical Analysis*, J.K. Foreman and P.B. Stockwell, (John Wiley & Sons Inc., New York, NY, 1979, 313 p. \$52.50).

This is a new series which surveys the recent developments in automatic chemical analysis. During these days of increased sample analysis to be accomplished with more limited budgets, the feasibility of automatic analyses is being closely examined by many laboratories. The appearance of this book is therefore timely. The volume is divided into eight chapters, each authored by an expert in the area. These are: Philosophy and Practice of Automatic Analysis; In-House Design and Construction of Automatic Analyses for Laboratory Use; Automatic Individual Analysis in Wet Chemistry Laboratories; Automa-