

Fats & Oils Outlook



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There is no constant variable between the price of fishmeal and soybean meal, so a casual observation would suggest that there is no practical way to use soybean meal as a medium for pricing protection for fishmeal producers and consumers. On the contrary, more detailed study of the situation yields some very interesting opportunities indeed.

In our studies we examined price relationships of these two protein sources from 1969 to the present (Fig. 1). During this period prices have fluctuated from very low to record highs that may never be repeated and back again. To have gone back further in history would have been of no value because of changes in the structure of the fishmeal business since the late 60's. There is no probability that the earlier situation will be repeated again. In the 1950's and most of the 60's there was a booming fishmeal business in Peru, with over-exploitation of resources. That lesson has been learned all-too-well and will not be forgotten.

Our study sought to find valid price comparisons of the two proteins from a disinterested party with no vested interest. We decided upon quotations from the *Oil World* published in Hamburg, Germany, an independent trade journal reporting conditions in the markets for fats and oils and feed proteins. Next we sought to smooth out short-term price fluctuations which might produce unrealistic distortions that would have no value in actual market performance. We chose to use monthly average prices. And finally, we preferred a common pricing location so as to eliminate irregularities in fluctuations of foreign currencies and ocean freight costs. We chose Hamburg for fishmeal and Rotterdam for soybean meal as being principal ports of importation, and we selected imported soybean meal rather than meal produced locally.

Previous studies of price comparisons were content simply to show the premium of fishmeal over soybean meal expressed in dollars or deusthemarks or some other currency. That was suitable so long as prices were relatively stable. But that approach is of little or no value in recent years, and presently, as prices have been seen to fluctuate at levels that previously were never even imagined.

To accommodate this circumstance, we have preferred to adopt a price ratio technique rather than specific price differences. This has proven to be most rewarding as a readily comprehensible technique. For example, with soybean meal at \$100 and fishmeal at \$150, this is obviously a ratio of 1.50 in favor of fishmeal. Expressed in

prices, fishmeal is \$50 over soybean meal. But when soybean meal is \$200 and fishmeal is \$250, still a \$50 spread, the ratio is only 1.25. Thus any study just looking at actual price spread is misleading.

Results of Ratio Study

From the beginning of 1969 to the present, the extremes have been from a ratio of 1.30 to 2.76. Actual prices have ranged from \$91 to \$582 on soybean meal, and from \$116 to \$756 on fishmeal.

Fishmeal tends to lead the way on price advances, while soybean meal assumes the leadership role on declines. Nevertheless, there is a strong tandem effect, as reported in 1974 by USDA economists, stating that more than 93% of monthly price variations are correlated between the two meals.

For practical market application, we find that the ratio does not stay below 1.50 for very long, and on the high side does not hold above 2.00 for an extended period.

With this in mind, it is feasible to develop a market strategy that is useful for producers of fishmeal and soybean meal, as well as for consumers and those in the market enterprise between these groups.

When the ratio drops below 1.50, it is advisable to buy

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TABLE I
Market Prices of Soybean Meal and Fishmeal

	Ratio	Soybean meal price	Fishmeal price
March 1969	1.44	\$94	\$135
Oct 1969	2.31	92	213
Profit or loss		+ 2	+ 78
			Net profit \$80
Oct 1969	2.31	92	213
July 1971	1.47	107	157
Profit or loss		+15	+ 56
			Net profit \$71
July 1971	1.47	107	157
Oct 1972	2.76	135	373
Profit or loss		-28	+216
			Net profit \$188
Oct 1972	2.76	135	373
July 1973	1.30	582	756
Profit or loss		+447	-383
			Net profit \$64
July 1973	1.30	582	756
Nov 1973	2.76	223	615
Profit or loss		+359	-141
			Net profit \$218
Nov 1973	2.76	223	615
Sept 1975	1.35	169	228
Profit or loss		-54	+387
			Net profit \$333
Sept 1975	1.35	169	228
Oct 1976	2.11	211	446
Profit or loss		-42	+218
			Net profit \$176

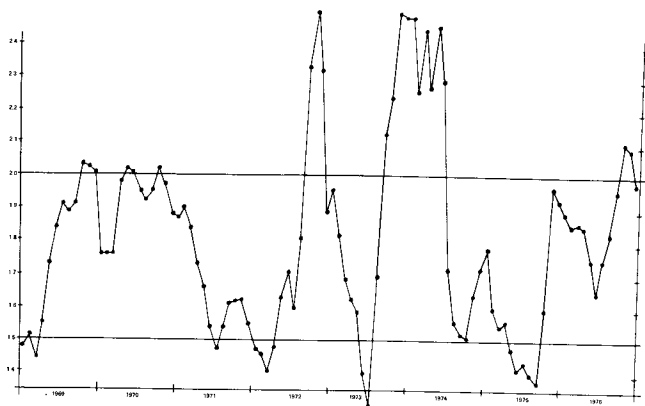


FIG. 1. Price ratio of fishmeal vs. soybean meal.

Their two sons are collectors—road maps (mirroring the family's world-wide travels), airline souvenirs, music boxes, Civil War Momentos and other items.

While AOCS has been White's paramount interest among professional affiliations in recent years, he also is among the select Fellows of the American Institute of Chemical Engineers. He's a past president of Foster Wheeler Corporation's 25-Year Club, the Tokyo chapter of Toastmasters International, and the Junior Chemical Engineers of New York. He is a former member of the Princeton-Engineering Association Executive Committee, and a founder of the Princeton School and Scholarship Committee in Queens, NY.

White's presidency has been marked by a determination to reach practical solutions to as many problems as possible ("Engineers are supposed to be pragmatic and we are," he said in his inaugural address). This month he is writing the comments he will deliver next month in New York as his term as AOCS president ends. You can bet even money he'll have some down-to-earth suggestions for future AOCS problem solvers. ●

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fishmeal and sell soybean meal, cash or futures, with the knowledge that the ratio is going to improve. Conversely, when the ratio moves above 2.00, it is advisable to buy soybean meal, cash or futures, and sell fishmeal, knowing that the ratio will narrow.

Table I tabulates how this market strategy performed in the past eight years.

Conclusions

It can be seen that there is no simple seasonality to this strategy.

There were other profit opportunities that could have been realized on a more short term basis. But in the interest of demonstrating a program of highest probability of profit, we adopted a rigid formula of reversing positions below ratios of 1.5 and above 2.0. It can be seen that with the expertise of hindsight we let the market go to its maximum beyond those points. In actual performance, that could not be expected, but the results would still be favorable.

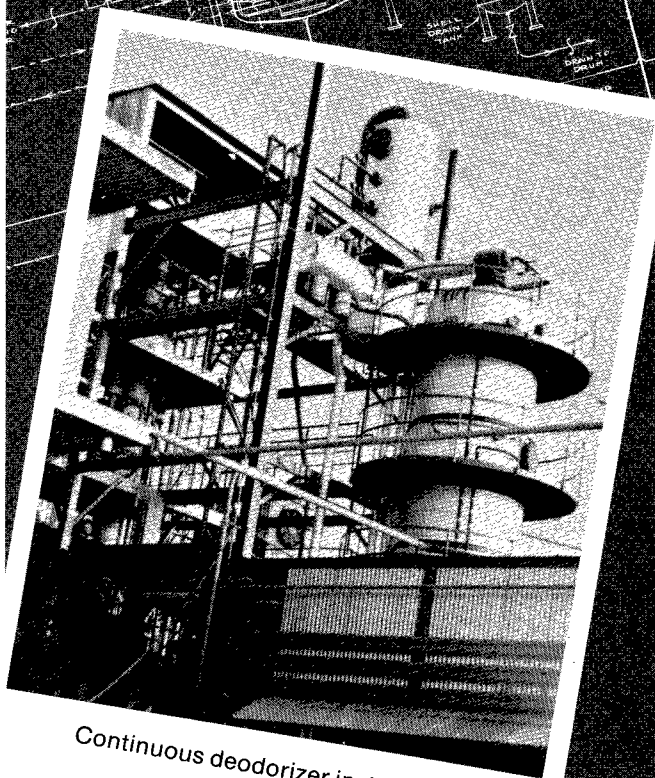
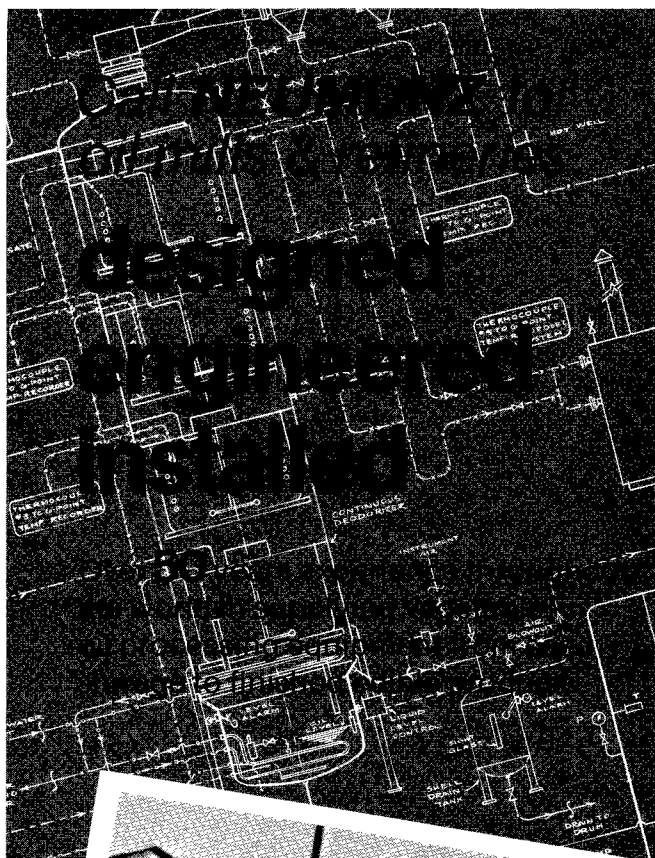
There are a number of factors to explain the price and ratio swings. The ratio and prices always show a premium for fishmeal for an obvious reason. Fishmeal is 65% protein while soybean meal is 44% protein.

In our study we could not use soybean meal futures prices instead of cash price at Rotterdam because it is unrealistic to attempt to calculate a monthly average of futures prices. To use a median could be too misleading.

It is likely that soybean meal futures did not exactly parallel cash soybean meal prices in Rotterdam, but the relationship should have been very close.

In applying this strategy it is obvious that an importer or feed mixer could switch back and forth from soybean meal to fishmeal and back again. It is also obvious that a producer of fishmeal does not have this flexibility. He has no need for soybean meal. So his alternative is to use soybean meal futures, which provide an excellent money management opportunity which would otherwise not be available.

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Continuous deodorizer installation.

