End of the Road

THE SBO PRICE collapse of late last winter reached a climax when December, 1963, SBO sold at 7.05, the lowest price at which a SBO futures contract ever traded. This low was the culmination of a several year build-up in oil stocks. During this period prices only intermittently reflected the statistically bearish situation that was developing. The fact that meal demand was strong encouraged crushers to continue operating despite relatively unfavorable margins. Even at the dreadful margins of this season, some crushers continued to go full speed, perhaps in part influenced by their market positions. However, the bulk of the industry responded predictably to economic factors, and crush may not exceed 430 million bu vs. 475 last year. Sloppy meal demand has prevented meal from rallying in response to low production. Proximity to loan has prevented beans from breaking enough to help margins. Oil stocks have been, up to now, too high for oil to help.

However, there are certain characteristics to oil, its economics, its trading patterns and its current situation that when taken together imply that help may eventually be forthcoming from oil. The timing of this aid is uncertain, partly because it depends on when traders in general come to the conclusion discussed here. If they come to it too early, they could force crush up and defer it. The general conclusion is not likely to come until after several months of stock declines so strong as to imply that October 1 stocks this year year will be smaller than a year earlier, and that there will be further stock decreases in the new season.

At present we only need to confine our guessing to SBO stocks. CSO stocks are high and likely to remain high. But since the USDA is willing to accumulate unlimited amounts of CSO, this is not a concern unless CSM should turn strong. This seems unlikely in view of the extremely weak cattle prices, but certainly bears watching.

A soybean crush of 425–430 million bu will produce 4.6 to 4.7 billion lb oil. Assuming domestic consumption of 3.7 billion plus exports of 1.2 billion (the USDA estimates), then oil stocks will be cut 200–300 million lb. Of this about 100 million lb is likely to be in reduced product stocks, and 100–200 million lb in crude plus refined SBO stocks. For the new crop season a somewhat more dramatic stock reduction could be shaping up. Assuming 4.85 billion lb oil production (crush 450 million bu), we could force a stock cut of 250–350 million additional lb, virtually all of it out of crude plus refined SBO stocks. This possibility is arrived at as follows. Based on March-May farrowings and June-August farrowing intentions, lard production is likely to be down *at least* 7.5% = 180 million lb. Assuming that lard exports will be down 80 million lb (and they may not be), SBO could benefit to the extent of 100 million lb. With slightly lower cotton acreage and slightly lower lint cotton yield, plus the USDA CSO buying, SBO could be next season the sole beneficiary of the annual increment in domestic fats and oil consumption. SBO domestic consumption could reach 3.85 billion lb, maybe 3.9 billion. Assuming that the north rim of the Mediterranean has on "off" olive year, and assuming that we catch an occasional "exotic" P.L. 480 trade such as Brazil and/or India, exports should reach a min of 1.25 billion or perhaps as high as 1.3 billion. Total disappearance then, could reach 5.1 billion lb, perhaps 5.2 billion, or 250 million above production, perhaps 350 million. A cut much larger than 250 seems unlikely because if oil disappearance in either category should be above the low guesses, then the crush would probably increase to meet the oil demand as reflected in the oil price. To the extent that a long range guess can be honestly assayed the lower oil disappearance guesses would not seem particularly speculative. Domestic oil consumption increases have a sort of inexorable quality about them, that disadvantages the oil price during periods of rapid growth in meal demand. With pig numbers down and fish meal availability increasing again, meal demand may have reached a temporary plateau both here and abroad. If so then the inexorable oil demand growth works to the disadvantage of meal prices. Unless meal demands turn up we could be in the interesting position of crushing to meet oil demand rather than to meet meal demand, a situation that has not prevailed for several years. The potential impact on meal is uncertain but could be substantial. Crack meal analysts are roughly as scarce as unicorns, and those that do exist are out of practice on price analysis of meal under this sort of circumstance. In recent years a prominent school of meal analysis has arisen under the banner of "whatever happens, don't be short meal." This motto might be in for a test next season. If the crush is no higher than 450 million bu, new crop bean prices may have difficulty getting off the ground, despite the probability of expanded bean exports. This in itself can act as a throttle on crush by cementing large quantities of beans in the loan. November beans are currently $2.44. Assuming an eventual 10¢ or more spread to May, this puts May next year at $2.54, a price at which beans will probably not stay in loan.

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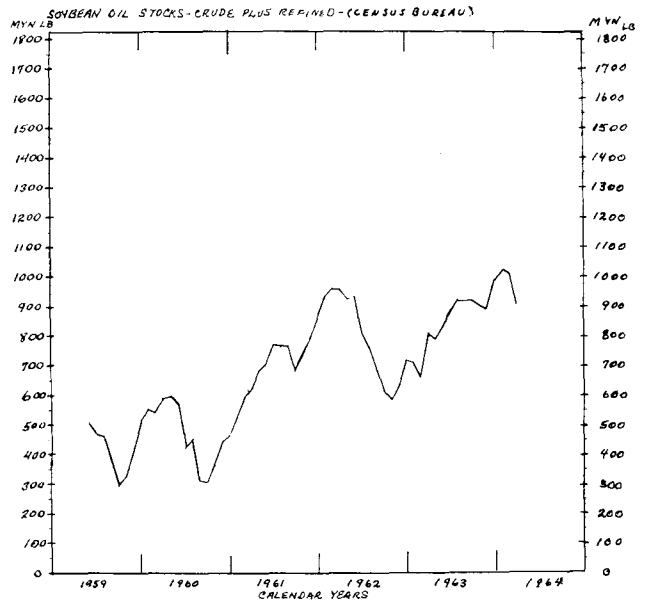

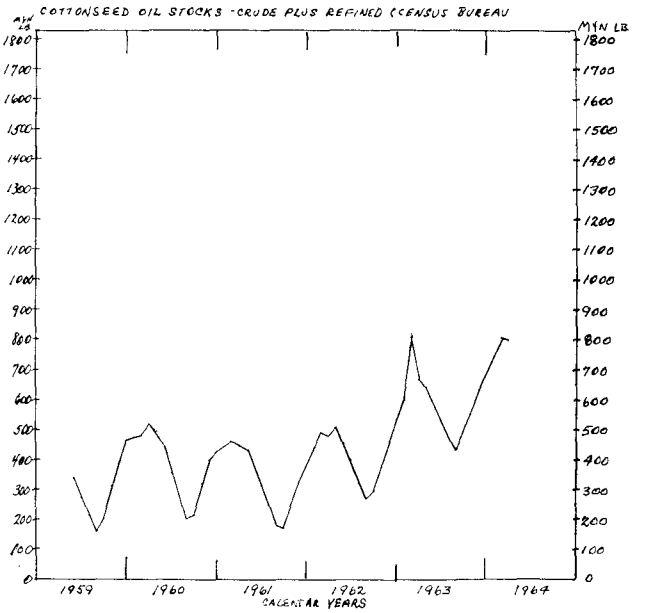

End of the Road . . .

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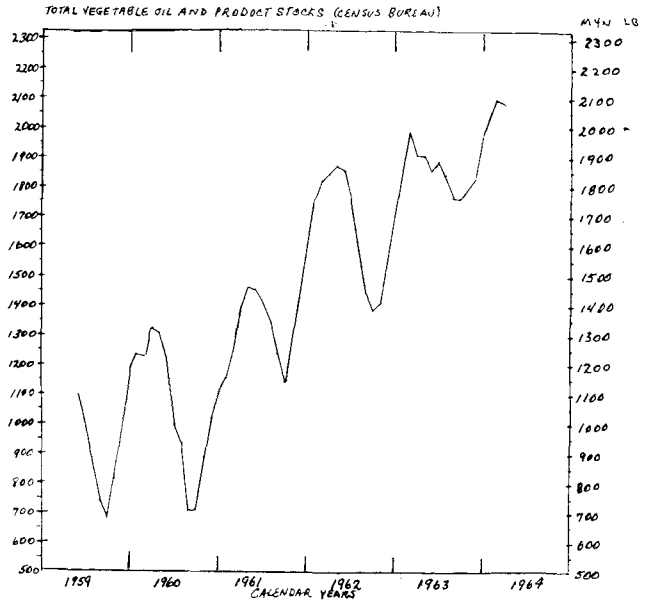

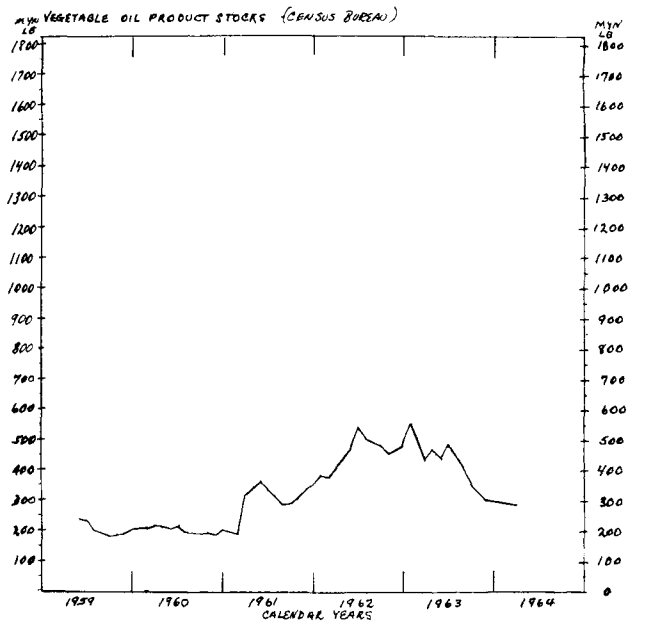

Of all the assumptions made here, the most critical of all, and the least amenable to demonstration, is the one that meal demand will remain sloppy for the better part of the next twelve months. Nearly all analysis in some situation will lean to the forecast method known as "extrapolation through ignorance." This involves the thesis that when in doubt assume indefinite continuation of the current trend. To some extent this has been done here. If this works in this case, then as far as oil stock build-up is concerned, we have reached the end of the road.

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ABSTRACTS: BIOLOGY AND NUTRITION

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EFFECT OF DEGREE OF FATTY ACID UNSATURATION IN TOCOPHEROL DEFICIENCY-INDUCED CREATINURIA. L. A. Witting and M. K. Horwitt (L. B. Mendel Res. Lab., Elgin State Hosp., Elgin, Ill.). *J. Nutr.* 82, 19–33 (1964). The rate of development of creatinuria in the tocopherol-deficient rat proved to be dependent on the degree of unsaturation of the dietary fatty acids. Data were obtained consistent with relative *in vivo* rates of fatty acid peroxidation of monoenoic, dienoic, trienoic, tetraenoic, pentaenoic, and hexaenoic fatty acids in the ratios 0.025:1:2:4:6:8, and tocopherol requirements for constant diminution in the rates of peroxidation in the ratios 0.3:2.3:4:5:6. Muscle phospholipid fatty acid compositions were dependent on the compositions of the dietary fats but were independent of the level of dietary fat between 7.5 and 19%. Within this range the rates of development of creatinuria and the tocopherol requirements were also independent of the level of dietary fat. One milligram of d-α-tocopheryl acetate per kilogram rat per week delayed the onset of creatinuria by 17 to 20 weeks.

BIOLOGICAL AND NUTRITIONAL PROPERTIES OF ESTERIFIED OILS. A. Uzzan (ITERG, Paris, Fr.). *Rev. Franc. Corps Gras* 10, 517–30 (1963). Esterified oils obtained by the esterification of distilled fatty acids with distilled glycerine have been the object of numerous discussions in which concern has been voiced as to the nutritional value of these oils. The characteristics, structure and especially the biological use and toxicity of these synthetic oils have been questioned. This study was designed to critically evaluate reports of *in vivo* studies on the use of synthetic triglycerides. The author concludes that synthetic triglycerides are not carcinogenic, do not cause atherosclerosis or hypercholesteremia and are readily available and nutritionally useful to the experimental animal.

THE CONTROL OF THE NUTRITIONAL VALUE OF SOYBEAN CAKE. M. R. Feron (Tech. Dir. Soc. Astra Calve, Paris, Fr.). *Rev. Franc. Corps Gras* 10, 661–666 (1963). The difficulty in measuring the nutritive value of soybean cake by either a rat feeding test or by *in vitro* test is pointed out. It is suggested that either the Frolich test or the Orange G test be used since both are simple and satisfactorily reproducible. 68 references are given.

THE DEVELOPMENT AND USE OF SOY FLOUR IN HUMAN FEEDING. M. Lynn and C. Adolphson (Archer Daniels Midland, Minneapolis, Minn.). *Rev. Franc. Corps Gras* 10, 649–659 (1963). A paper presented at the conference on soybeans and soybean products held at Paris, France on October 2, 1963. The origin of soy flour was traced and its physiological and nutritive properties as well as its composition described. Usage of soy flour in bread, cakes, biscuits and cookies was discussed.

RELATIONSHIP BETWEEN DIETARY FATS AND THE DEVELOPMENT OF BILE STONES IN ANIMALS. H. Dam (Polytech. Inst., Copenhagen). *Riv. Ital. Sostanze Grasse*, Sympos. Issue 1962, 85–93. Hamsters fed on a fat-free, high sucrose diet, with or without vitamin E, develop crystalline bile stones with a high (90%) cholesterol content, as well as dark colored, amorphous stones having a high content of bile acids. The more easily digestible the carbohydrates used in the diet (glucose, sucrose), the higher the incidence of cholesterol stones. When the carbohydrates in the diet are replaced by fats, there is a complete reversal of trend, with the incidence of cholesterol stones being greatly reduced and in some cases (more unsaturated fats) disappearing altogether. In a mixed fat-carbohydrate diet, the incidence of cholesterol stones is also reduced to zero when the glucose is replaced by starch or lactose. An appropriate change in diet, to one rich in fats and starch, is capable of redissolving previously formed cholesterol stones, but not the amorphous ones. In similar experiments on chickens, these animals did not develop bile stones even when fed on a fat-free glucose diet. Chickens' bile has been found to have a bile acids:cholesterol ratio ten times higher than in hamsters and a ratio of liposoluble phosphorus to cholesterol seven times higher. A similar situation, not conducive to formation of cholesterol stones, has been found with mice.

THE BIOSYNTHESIS OF STEROLS IN SOLANUM TUBEROSUM. D. F. Johnson, E. Heftmann, and G. V. C. Houghland (Natl. Insts. of Arthritis and Metabolic Diseases, NIH). *Arch. Biochem. Biophys.* 104, 102–5 (1964). The incorporation of mevalonic acid-2-C^{14} into potato plants of the Katahdin variety was studied for an extended period of growth. The largest incorporation into the major sterols, stigmasterol and beta-sitosterol, occurred in 1 week. At any growth period, total and specific activity of stigmasterol are almost always less than in the case of sitosterol.