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BRIEFING PAPER NO. 9*

Some consideration of Pigskin as a Potential Raw Material Supply for the Leather Industry

Prepared

by

the secretariat of UNIDO

* This document has been prepared without formal editing.

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Note by the Secretariat

It was planned to expand the Second Report on the World-wide Leather and Leather Products Industry to include some consideration of pigskin as a potential raw material supply for the Leather Industry.

The Secretariat Briefing Paper by consultant I. Glass provides some perspective on the subject and is reproduced here for the information of the Panel.

Pigskin Supply Potential

1. In a period when high prices for all descriptions of hides and skins are a barometer of limited supply, attention is again focussed on pig and hog skins. According to leather industry annals, consideration of the pigskin potential rises in intensity with the hide price curve. New price records in 1979 and concern with future supply trends in cattlehides, the primary raw material of the world leather industry, amply justify renewed examination of pigskins as a supplementary or potential supply valve.

2. The arithmetic is certainly appealing: 614 million pigs in the world; biologically prolific, this number could support a slaughter ratio of 100%, actually 150% in certain developed countries; a yield of 10 square feet per skin would enlarge world leather resources by 6 to 10 billion square feet and without impairing swine numbers. One billion square feet is the equivalent of 25 million cattlehides, as much as the U.S. exported in 1978. Ten billion square feet would provide a pair of shoes for every inhabitant of the planet with a dividend of a few million handbags and wallets.

3. In contrast to this potential of raw material supply, the current reality is different. With the exception of China, pigskins have a negligible role in leather production and consumption.

Estimated production of pigskins in 1977

Western Europe (including Yugoslavia)	3,900,000 pcs
Eastern Europe (Poland and USSR)	17,000,000
North America	1,900,000
Latin America	4,000,000
China	23,000,000
Total	49,800,000

4. The quantities of skins actually flayed and available for tanning are less than 10% of the number of pigs slaughtered world-wide in 1977. What are the reasons for the great gap between pig slaughter and skin takeoff as raw material suitable for tanning?

5. In the first place, pigskins are not typically produced as by-products with the low value ratio to meat which has been characteristic of almost all hides and skins. Pigskin can be and is sold at meat values. It has been far more profitable to market pigskins attached to various cuts of pork. In effect, the ultimate consumer pays the price of bacon or ham for pigskin. This applies equally to a modern packing plant or to the sale of pigskin strips as food in an African village. The economic incentive and result are identical. Leather making substance would have to be at least as valuable per pound as the average pound of the meat carcass to inspire the incentive for commercial flaying of pigs.

6. However, more than temporary price incentive or stimulus would be required to change prevailing packing house or butcher practice. Economic removal of pigskins entails new technology and capital equipment as well as radical changes in meat marketing. Investment to achieve the basic changes enabling recovery of pigskins in volume would be large by industrial standards in developed countries and beyond the means of small abattoirs or local butchers. There is no feasible alternative to such large scale costs if pigskin availability is to be more than a small fraction of pig slaughter.

7. Hand skinning of pigs is costly and time-consuming because surgical dexterity is needed to cope with the fatty layer under the skin and avoid carcass damage. Several machines have been developed for the purpose but there is no unanimity on their effectiveness. Installations to date have not been notably successful and were abandoned in two instances (Oscar Mayer, Wisconsin; Jimmy Dean Meat Co.).

8. In almost all developed countries the large pig slaughtering and processing establishments scald the carcass prior to butchering as a sanitary requirement. Packers claim that proper control of temperature and water change enable them to meet hygiene standards. Scalding also is a low cost means of bristle removal. Alternative methods of preventing meat contamination would have to be utilized if skins were removed prior to carcass processing.

9. Quality variation in pigskins is extreme as the difference between North German packer cattle hides and hides from the interior of China. Pigs raised in pens or the enclosures of pig factories and slaughtered at approximately six months yield the finest quality skins. Under ordinary farm conditions grain damage tends to be extensive, especially on skins from older animals. Inferior pigskin can only be used for limited purposes by tanners and their marketability, therefore, is restricted. Finally, the fibre structure of pigskins is not uniform through the entire area of the skin. This variation causes much greater technical difficulty in producing uniform leather than in tanning hides or skins of other species.

10. Low relative value in return to producer is the core of every reason cited for the limited production and leather tanning use of pigskins in the past. Given adequate incentive, through market operation or plan, every one of the constraints noted, whether technical, financial or gustatory, could be lifted. A parallel may be recalled in the prompt development of cattlehide garment leather, when the incentive appeared, although it had previously been known that cattlehides could not be used for that purpose. In the light of price trends in hides and skins during the past two years and supply projections, some compelling reasons may be emerging for growth in pigskin supply.

11. Hide and skin prices tend to move in unison in spite of the moderate extent to which cattlehides, sheepskins and goatskins can be substituted for each other in end products. There is, however, sufficient overlapping in end usage to cause similarity of price trend. Pigskin prices have already been drawn into the higher priced level of hides and skins because pigskin leather can be used for apparel, shoe uppers, small leather goods and travel ware.

12. Stable production of pigskins in volume will not be engendered by a brief flurry of high prices for raw material. Only the persistence of a price level high enough to offer an attractive alternative to selling pigskins as "food" will accomplish the changeover. There should be no illusions on that score. Studies which avoid or ignore the central fact of meat price versus skin price and merely extrapolate potential billions in square feet of leather are inadequate to sound analysis of available hide and skin supply.

13. Price prediction is notoriously fallible; whether and when pigskin values will reach the level required to divert skins to leather production is not certain. However, two factors will aid the likelihood of a favourable trend. First, beef output is declining and several years must elapse before herds and slaughter, notably in the U.S., can expand. But pork supplies can increase rapidly, within six months. Consequently, price trends of pork and of pigskins will probably diverge for an appreciable time span and thereby enhance the incentive for removal and marketing of pigskins.

14. It is pointless to count future litters or speculate on the leather products which increased pigskin supply might fill. At best, the process of transferring the pig slaughter industry to a more productive system, from the tanners' standpoint, will be slow. Accretion of available skin supplies will not flood markets by 1985.

15. Tanners seeking additional raw material supply frequently pose the question - are any measures feasible to expedite expansion of pigskin supply and thereby aid the world tanning industry in meeting serious supply problems anticipated during the next few years? It is difficult to conceive any effective organized action under any auspices - short of governmental intervention on a multi-national scale. One may assume that, barring grave emergency, such action would be exceedingly remote in the market-oriented economies. In centrally planned economies, the effectiveness of regulations or prices might correlate with the proportion of slaughter in large-scale establishments.

16. In brief, until and unless comparative prices give impressive value to pigskins over pork, the supply of these skins will remain a potential rather than actual raw material resource.

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