Chapter 15

Future of Sunflower as an Economic Crop in North America and the World
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The economic future of sunflower (Helianthus annuus L.) in North America and the world must be appraised in comparison to its major oilseed competitors. This appraisal must consider the relative value or desirability of sunflower products and factors affecting their markets.

Two distinct types of sunflower are produced, the oilseed and the non-oilseed. The farmer selects the cultivar for his intended market. Sunflower production in the USA in 1977 was about 90% oilseed and 10% nonoilseed types. Oil is the main product of the oilseed type, with meal an important byproduct. The edible kernel is the main product of the nonoilseed type, and hulls are a minor byproduct.

Oilseed sunflower produces two kinds of oil, one high in polyunsaturates (high in linoleic acid) and another high in monounsaturates (high in oleic acid) depending primarily on the temperature during the growing season. Sunflower oil high in linoleic acid generally is produced in Canada and USA in the northern growing areas or southern areas from late plantings in July and August, while oil high in oleic acid is produced in the South from spring plantings, primarily in April and May. Sunflower seed containing different kinds of oil should be kept separate so that the unique characteristics of each may be used.

Hulls may be removed from oilseed sunflower before oil extraction or seeds may be left intact, depending on the extraction process used. Sunflower oil usually is removed from the seed by screw pressing followed by solvent extraction. The remaining product is sunflower meal. Hulls also may be removed from the meal after the oil has been extracted. Sunflower meal and hulls are used in livestock feed. Sunflower meal can be processed further to produce edible high protein products which may be utilized in