
Small Scale Vegetable Oil Extraction

CARAPHIN NEWS. Dr. Pamela Anderson writes that "CARAPHIN NEWS, the newsletter of the Caribbean Animal and Plant Health Information Network, is published by the Inter-American Institute for Cooperation on Agriculture. It provides a medium for disseminating technical information on matters related to agricultural and environmental health, particularly information that is generated in and should be shared within the Caribbean Region. Articles cover topics on plant health (including plant disease and insect pest outbreaks) and animal health. The newsletter also includes a section on tools and resources, as well as announcements on conferences, courses and publications of interest. The editor, Sandra Vokaty, states that there are no country restrictions on subscription, though it would be financially difficult to cope with a huge number of new requests since subscriptions are free. If you are interested, write Sandra Vokaty (IICA, P.O. Box 1318, Port of Spain, Trinidad and Tobago; e-mail: svokaty@iica.org.gy).

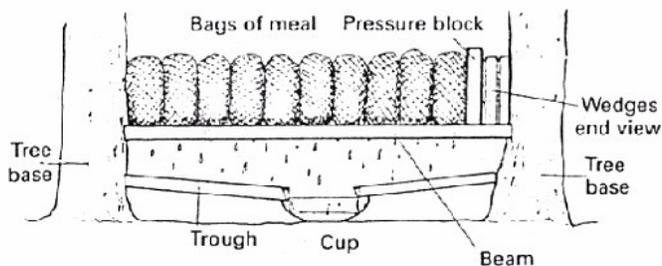
SMALL SCALE VEGETABLE OIL EXTRACTION. We have long felt the need for something to provide perspective on extracting oil from seeds using options available for household or village level situations. Questions along this line are frequently received at ECHO. From now on most will be answered by referring to this book. It does an outstanding job of concisely presenting just enough information. Some of my favorite books are those which I could study for three hours and then give a onehour lecture on the subject and be thought an expert by a general audience! This is in that category.

The first two chapters provide a basic understanding of the science and composition of oils and economic and marketing considerations. Chapter 3 covers principles of oil extraction. "The main difference between commercial and small-scale processing is that commercial mills refine the oil before selling it. Good quality unrefined oils produced by small-scale methods are in no way inferior ... and are, in many cases, preferred by the consumer as they retain the flavour of the oilseed."

Five basic oilseed processing methods are considered. (1) Oil extraction methods using water, (2) manual methods using kneading, (3) manual presses, (4) ghanis and (5) expellers. (The ghani is, in effect, a mechanized version of the kneading method.)

"The hot water flotation method is traditionally used in rural areas of many developing countries. Usually decorticated seed is used [the outer shell has been removed]." The oilseed kernels are heated, ground by pounding in a mortar and pestle, then suspended in boiling water and boiled for at least 30 minutes. Liberated oil floats to the surface and is scooped off.

Using presses of various types increases oil yield. Several well-illustrated designs of various complexity are shown. This wedge press is one of the simplest.



Chapter 4 covers the major oil sources and discusses specific small and intermediate technologies for each. Results from actual third world situations are used. For example, the

discussion of obtaining oil from sesame seed covers a hot water flotation method used in Uganda and Sudan, the bridge press (laboratory only), the ram press in Tanzania, the ghani process in Sudan, and a small-scale expeller in the Gambia. Technical details for each are summarized in a few paragraphs, including oil yields.

Though the book has many drawings that are helpful in understanding each process, no attempt is made to give detailed instructions on making the equipment. References are given to articles where specific third world experiences are detailed, some of which might tell how to make the press. A 14-page appendix lists several suppliers that produce and sell small-scale equipment.

The 107-page book is published by the Natural Resources Institute (NRI). No charge is made for single copies sent to governmental, educational, research, or non-profit organizations working in countries eligible for British aid. Free copies cannot normally be addressed to individuals by name but only under their official titles. Please quote CRP4 when ordering. NRI-Free Issues, Central Avenue, Chatham Mar., Chatham, Kent ME4 4TB, United Kingdom. Others may order for £12.50.