

How to Strike Oil (From Seeds, That Is)

This is the VOA Special English Agriculture Report.

From the beginning of human history, people have used oils from seeds and nuts. Most of the time these oils are used as food, especially in cooking. But sometimes they have other uses. For example, oils are used in paint and in cleaning products like soap.

Oil is separated from seeds by using pressure. A machine called a press is often used.

Sometimes it is surprising to learn how much oil the seeds contain. Sesame, cotton and sunflower seeds, for example, all contain at least fifty percent oil.

Soybean is an important seed around the world, but it is only twenty percent oil. So chemicals are needed to release oil from soybeans.

The first step in pressing the oil from seeds is to crush the seeds between two stones. The crushed seeds are then put into a cloth bag and the bag is hung up. Some of the oil will flow out of the bag and can be collected.

But some oil will remain in the crushed seeds inside the bag. The easiest way to get the rest of the oil out is to place heavy rocks on the crushed material.

Another method is to place several cloth bags on top of each other in a box. Then a long wooden stick is used to slowly push a heavy cover down on the bags. Great pressure is produced in this way. Much greater pressure can be produced by using a machine, a hydraulic jack. The greater the pressure, the more oil will be produced.

Oil can also be collected with small, hand-operated machines. Small presses are important in areas where electricity or gasoline cannot be used. They are also a good way to test if a local market for oil exists.

Small batch presses can be made of local materials. Their cost is low. They are not difficult to operate. And they are easy to repair. The small presses produce good quality oil. But the work is hard. And getting all the oil from the seeds can be difficult.

If there is a large supply of seeds, then hand-operated presses may not be enough to support a business. Large, powered presses that can operate all day are needed.

Guides to activities like removing oil from seeds and nuts are available from the organization EnterpriseWorks/VITA. These publications can be ordered for a charge at enterpriseworks.org. Click on the News & Resources link.

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