

Oil Mill in China

The oil mill is an agricultural product processing machine that processes oil into edible vegetable oil. It has simple structure, convenient operation and low price, and is widely used in rural grain and oil processing points. In order to understand the quality of screw press and the status of edible oil processing, Liaoning Agricultural Machinery Quality Supervision and Management Station has screwed 33 rural grain and oil processing points in Sichuan, Henan, Hebei, Beijing, Anhui, Hubei, Liaoning, Zhejiang, Jiangsu and other provinces. The use of the oil machine was investigated. The survey involved products from 26 screw press manufacturers and sampled dry cakes and oil from rural processing sites. Edible oil companies in india

1 [Screw oil press](#) quality survey results

1.1 oil mill product quality level needs to be improved

According to the survey results, only 45.4% of the users expressed “satisfaction” with the quality of the purchased screw presses, 36.4% of the “general” quality, and 18.2% of “unsatisfactory”. 45.5% of the users reported that the screw press had quality problems such as easy bearing damage, short screwing and short life of the pressing ring. There are also three users who report that the screw press is basically unable to operate normally. The above survey results show that the quality of China's screw presses is poor, and there are many quality problems. It is urgent to further improve the production level of oil presses.

1.2 oil extractor processing point environment is poor

From the on-site health status of 33 rural oil processing sites surveyed: 13 households were better, accounting for 21.3%; 18 households were in general condition, accounting for 29.5%; 30 households were in poor health, with a proportion of 49.2%. This shows that the environmental sanitation of rural oil processing sites is generally poor.

From the scene, the health problems are mainly manifested in: the mixing of raw materials and edible oil, the dust of the raw materials in the transportation process is easy to fall into the edible oil; the body of the oil press body, the oil container and the like that are in contact with the oil are stained with dirt. Serious corrosion. These conditions can cause pollution to the edible oil and affect the health of the consumer.



1.3 Some oil

products are not up to standard

Acid value is one of the important health indicators of edible oil. Excessive acid prices mean that edible oils begin to spoil and produce some aldehydes and ketones. Practice has shown that long-term consumption of edible oil with excessive acid value can cause stomach upset, nausea, vomiting, abdominal pain, diarrhea and other symptoms, and damage liver function and even cause cancer. The reason why the acid value of the oil exceeds the standard is not only the moldy deterioration of the raw material, the excessive water content of the oil, but also the storage time is too long. For the mechanical press oil, if the performance of the oil press is not good, the temperature in the press process is too high, and the oil will also be caused. The acid price has increased. The edible oil samples processed by 33 users were tested, and the acid price of oil meets the standard requirement of only 81.8%.

1.4 Dry cake residual oil rate is high

The dry cake residual oil rate refers to the amount of residual grease in the cake after the oil press presses the oil. The size of the cake represents the pressing effect of the oil press and is an important indicator to measure the performance of the oil press. In this survey, the samples processed by 33 users were tested, and the residual oil rate of dry cakes was only 63.6% in accordance with the standard requirements. Among them, the highest residual oil rate of dry cake exceeded the standard requirement of 36.4%. Use this oil press to process edible oil. If 400 t of soybeans are processed every year, the residual oil in the 350 t bean cake after processing is 12 t more than the normal oil press (that is, 12 t less oil), which is equivalent to 66 t. The oil content of soybeans causes a huge waste of oil resources.

1.5 Missing safety guard

From the use site, 69.7% of the users did not take safety measures in the dangerous parts such as the exposed moving parts of the screw press or the electric control switch, and 78.8% of the oil press body did not have a safety sign. The reason for this is as follows: First, the user removes the safety protection device during the maintenance process; the second is that the material of the safety mark does not meet the requirements, the adhesive strength is not enough, and it will fall off after using for a period of time; The strength and rigidity of the guard are not up to standard. After a period of use, the weld is broken and opened.

2 Analysis of the causes of the quality problems of screw press and edible oil

2.1 Loss of management and [Oil Mill](#) guidance

The state has not implemented effective management of rural edible oil processing points and lacks proper guidance. The state implemented an access system for the edible oil market, but did not extend to the rural market. In addition, the society is not paying enough attention to the issue of edible oil safety in the vast rural market. The management of rural oil processing points is in a blank state. There is no supervision and correct guidance on the safe production and health status of the processing points. Technical skills, safety awareness and health awareness are not carried out. Wait for training.

2.2 Enterprise safety awareness needs to be strengthened

Oil Mill manufacturers have insufficient production conditions and their business ideas are not correct. First of all, the production equipment of some enterprises can not meet the production requirements, lack of special equipment and heat treatment equipment. The processing

precision of the pressed screw and the pressure ring after processing is poor, the surface hardness is low, and the main performance indexes such as dry cake residual oil rate are unqualified. And low service life. Secondly, the inspection methods are imperfect, it is difficult to carry out regular performance inspection of the products, and the quality of key parts is controlled during the production process, and the quality of the products cannot be guaranteed. Thirdly, enterprise management is extensive, lacking the necessary quality management system and product technical standards, mainly relying on experience for production. Some enterprises pay more attention to lighter quality, and there is a phenomenon of cutting corners to reduce manufacturing costs.

2.3 oil mill technical training is not in place

Farmers engaged in grain and oil processing did not receive relevant technical training, resulting in improper use of the operation. The oil press is different from the general agricultural product processing machinery and has high requirements on the user's operation technology. In particular, the "heating" of the previous oil processing (such as oil steaming) is crucial: if it is well mastered, it can improve the oil rate and productivity, and reduce the power consumption; if it is not well mastered, the dry cake residual oil rate And power consumption will increase.

According to the survey, most oil press operators have not participated in the technical training carried out by the production enterprises or related service departments. The oil extraction technology mastered has great limitations and one-sidedness, resulting in poor oil production during processing, low productivity, and power consumption. High, affecting economic efficiency and oil quality.

2.4 Farmers' consumption concept is immature

Farmers' consumption concepts are immature and their self-protection awareness is poor. The users of edible oil squeezed by the screw press are generally farmers. Their comprehensive quality is not high. The laws on quality of the Consumer Protection Law, Product Quality Law, Agricultural Machinery Product Repair, Replacement, and Return Responsibility Regulations. The regulations are poorly understood, the consumption concept is immature, and there is a lack of self-protection awareness. Due to their limited purchasing power, they tend to pay more attention to price and ignore the consideration of long-term economic benefits, quality and safety issues. After the quality problems of the products, in the face of higher-cost rights protection activities, most farmers cannot protect their economic interests through rights protection.

3 Measures to improve the quality of screw press and edible oil

3.1 Strengthen supervision of the manufacturer of screw presses

Strengthen the management of the screw press production enterprise, and urge the production enterprises to improve the quality management system, production equipment, inspection capabilities, improve the technical level, and correct the business ideas, thereby improving product quality. At the same time, companies that do not have the ability to improve production conditions are restricted to produce oil presses, purify the industry, and improve the overall quality of the industry.

3.2 Strengthen the management of rural oil processing points

Strengthen the management of rural oil processing points and urge farmers to improve the sanitation status of grain and oil processing points. At present, the management of grain and oil processing points distributed in the vast rural areas and processing materials is still in a blind spot state. It is recommended that the state develop an appropriate management system as an extension of the market access system for rice, noodles and oil products, and encourage farmers to purchase. Good quality and safe oil press. At the same time, establish environmental sanitation standards for processing areas, and urge processing points to improve the sanitation status of grain and oil processing.

3.3 Improve farmers' safety awareness

Strengthen technical training for farmers and improve their skills. [Grain and oil processing](#) is one of the important industries for farmers to engage in non-agricultural production. It should be supported and properly guided by the state and formulate corresponding policies. Use sunshine engineering and vocational skills appraisal to guide farmers to gradually improve their safety awareness and food hygiene awareness.