



The Secret To Achieving 52% Peanut Oil Yield

A Complete Production & Filtration Guide for
Small-Scale peanut oil Producers to Maximize
Quality, Yield & Profits Without Breaking the Ban.

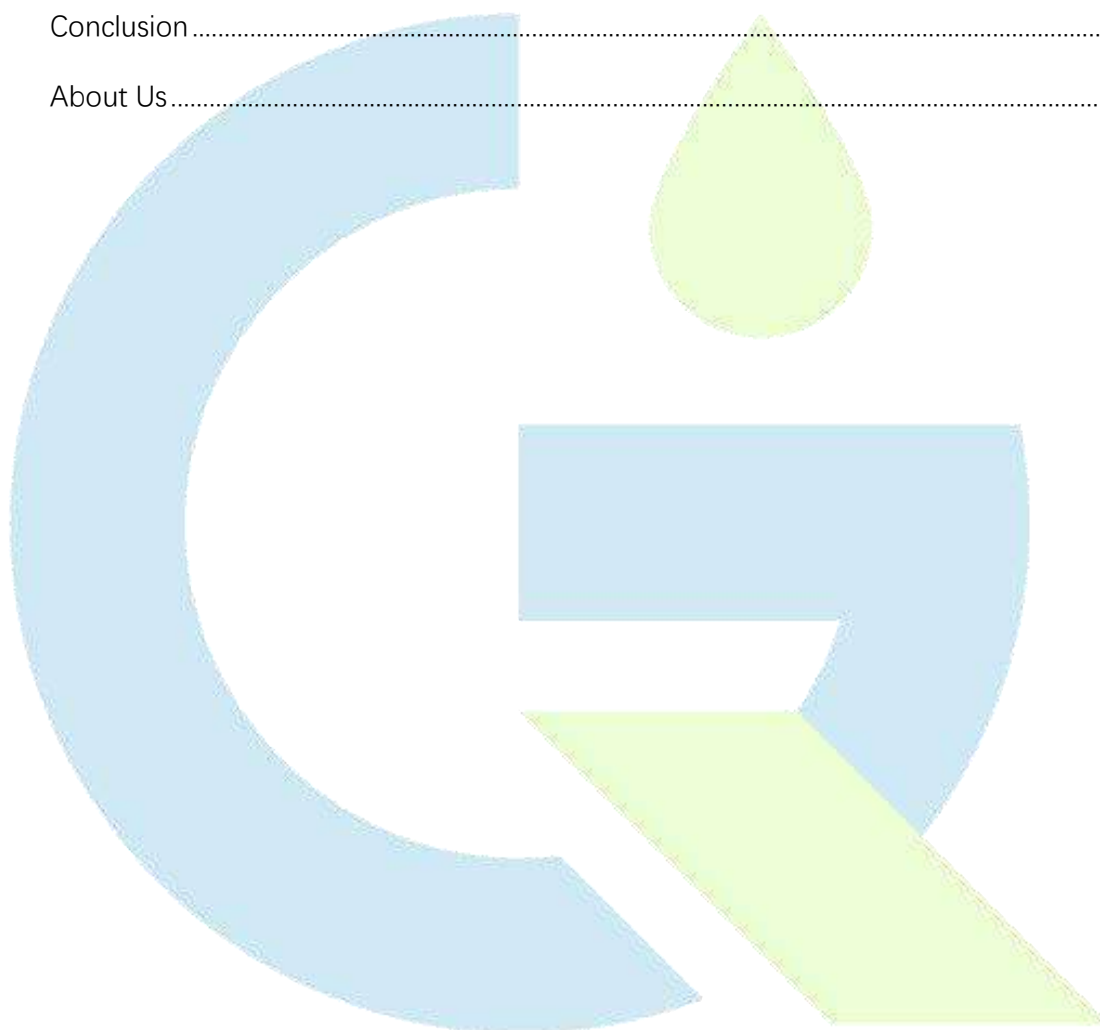
Empowering Small Farms, Transforming
Rural Economies.

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Directory

Introduction.....	2
Pressing Processes, Oil Yield, and Characteristics.....	2
Factors Affecting Peanut Oil Yield.....	3
Tips for Improving Peanut Oil Yield.....	4
Conclusion.....	5
About Us.....	6



Introduction

Peanut oil, a versatile vegetable oil extracted from the seeds of the peanut plant, is a staple in kitchens and industries worldwide. Its popularity stems from a high smoke point, making it ideal for high-temperature cooking methods like deep frying, and a favorable nutritional profile rich in monounsaturated fats and Vitamin E. The global market for peanut oil is substantial, valued at over \$11.3



billion in 2025, with projections indicating steady growth to over \$14 billion by 2030. This expansion is driven by a rising consumer preference for plant-based, natural cooking oils and increasing demand in both the food and personal care sectors. While refined oil dominates the market, there is a rapidly growing interest in unrefined and cold-pressed varieties, reflecting a broader trend towards less processed, artisanal food products. For farmers and entrepreneurs, understanding the production process is the first step toward capitalizing on this robust market opportunity.

Pressing Processes, Oil Yield, and Characteristics

The primary commercial method for pressing peanut oil is the screw press, a mechanical process that uses tremendous pressure to extract oil from the peanut kernel. This process can be adjusted for different outcomes.

Hot pressing, which involves roasting the peanuts at 130° C to 160° C before pressing, is the most common method. The heat reduces moisture, develops a rich, nutty flavor, and facilitates oil release, resulting in a higher yield. The oil produced is aromatic and flavorful.

Cold pressing is done without pre-heating the kernels. This method yields a lighter, milder-flavored oil that retains more of its natural nutrients, appealing to the health-conscious market. However, the oil yield is typically lower than with hot pressing.



Regardless of the method, the initial product is "crude oil," which appears cloudy due to suspended solids. This can be sold as "unfiltered" oil for a rustic appeal, but most commercial operations will filter it to produce a clear, stable product. The typical oil yield from screw pressing ranges from **40% to 50%**, meaning 100 kilograms of Peanut kernels will produce 40 to 50 kilograms of oil. The leftover "press cake" is a high-protein byproduct that can be sold as valuable animal feed, ensuring no part of the crop goes to waste.

Factors Affecting Peanut Oil Yield

Maximizing oil extraction is crucial for profitability. Several key factors directly influence the final yield, and controlling them is a core competency that GQ Agri helps its partners master.

- **Crop Type and Variety:** Different peanut varieties naturally contain varying amounts of oil. Selecting a high-oil content variety is the first step toward a successful yield.
- **Moisture Content:** This is a critical parameter. The ideal moisture content for peanut kernels before pressing is between 8–10%. If they are too dry, they can turn to powder; if too damp, they create a paste that hinders efficient oil flow.
- **Cleaning and Screening:** Raw peanuts must be thoroughly cleaned of debris like sand, stones, and leaves. These impurities not only risk damaging the press but also act like sponges, absorbing valuable oil during extraction and reducing the overall yield.

- **Process Temperature:** For hot pressing, the temperature during roasting and within the press chamber itself is vital. The optimal temperature (120° C to 130° C) helps break down the oil-bearing cells within the peanuts, allowing for more complete oil extraction.
- **Pressure and Speed:** The settings on the screw press, including the pressure applied and the rotational speed of the screw, must be precisely calibrated. Fine-tuning these parameters for your specific crop can significantly decrease the amount of residual oil left in the press cake.
- **Maintenance of Oil Press:** A well-maintained machine is an efficient machine. Regular cleaning to remove residue and old press cake from the press chamber ensures that the equipment operates at peak performance and maintains consistent pressure for maximum extraction.



Tips for Improving Peanut Oil Yield

Improving your oil output often comes down to refining your process with a few practical adjustments.

1. **Start with Purity:** Invest in thorough cleaning and screening equipment. The cleaner your raw material, the purer your press input, and the higher your oil output.

2. **Master the Moisture:** Use a moisture meter to ensure your peanut kernels are consistently within the optimal 8–10% moisture range before they enter the press.
3. **Control Your Heat:** Calibrate your roaster and monitor press temperatures closely. A few degrees can make a noticeable difference in how freely the oil is released.
4. **Dial-In Your Press:** Don't rely on factory settings. Experiment with pressure and speed adjustments to find the sweet spot that maximizes oil extraction from your specific peanuts.
5. **Implement a Cleaning Regimen:** Schedule regular, thorough cleanings of your oil press. This prevents buildup that can reduce efficiency and ensures your machine runs optimally.

Conclusion

The journey from a raw peanut to a finished bottle of golden oil is a systematic process involving several critical stages: cleaning, preparation, pressing, and filtration. While the steps are logical, success hinges on controlling key variables and selecting the right equipment for your specific operational scale and product goals. Navigating the specifications for screeners, roasters, presses, and filters can be a formidable task, where the wrong choice can impact efficiency and profitability.

This is where expertise becomes invaluable. The 'best' equipment is not a one-size-fits-all solution; it is the system that is perfectly tailored to your vision, budget, and market.



About Us

At **GQ Agri**, we do more than just sell machinery; we build partnerships. With experience guiding hundreds of producers, from small family farms to expanding commercial enterprises, we understand that every operation is unique. Our goal is to serve as your trusted advisor, helping you design and implement a complete production line that is efficient, reliable, and perfectly aligned with your business objectives.

If you are considering entering the peanut oil market or looking to optimize your current operations, we invite you to **contact us**. Let's have a real conversation about your goals and work together to build your path to success.

