



October 2010

## Peanuts in the Garden

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### Summary

- Peanuts are not commonly grown in Utah, but certain types can be productive when the frost-free growing season is at least 110 to 130 days.
- Peanuts grow best in light, sandy soil, but can be grown in most other soil types if compost is incorporated to sufficiently loosen the soil.
- Peanuts ripen seeds (nuts) in pods underground. After the flowers are pollinated, a structure called a peg, located just behind pollinated flowers, extends into the soil where peanuts ripen.
- Peanuts are harvested when leaves start to yellow at the end of the growing season.
- When seeds are treated before planting with rhizobium bacteria, peanut plants add nitrogen to

the soil like peas and beans. Additionally, once peanuts are harvested in the autumn, the remaining plant material can be incorporated back into the soil or composted.

### Introduction

Peanuts are native to South America and have been used as a food crop for thousands of years. They are popular worldwide. A unique feature of peanuts is that pods containing seeds (nuts) mature underground. Once flowers are fertilized, a structure called a peg that forms the pod extends underneath the soil surface. If the peg does not penetrate the soil or get covered, the pods will not develop and produce seeds. Peanuts are very nutritious as they are rich in protein, unsaturated fat and many vitamins and minerals.

### Peanut Varieties

Variety	Days to Maturity	Seed Characteristics and Comments
Valencia	120-130	Produces three small nuts per pod, and has a sweeter flavor than other varieties. Best for areas with fewer frost free days. Little breeding has occurred for disease resistance, but Valencia types are still fine for use by the home gardener practicing sound garden management practices.
Early Spanish	90-130	Produces two to three small nuts per pod. Has greater oil content than other varieties. Commonly used for peanut butter and in candy bars.
Early Virginia, Jumbo Virginia	120-130	Produces one to two large nuts per pod. Virginia peanuts are commonly roasted in the shell; sold as shelled, salted/flavored nuts; used in cooking and processed foods due to larger nut size.
Runner Types	125-165	Runner type uses are similar to Virginia varieties. Some earlier ripening varieties exist including 'AT 215'. Sometimes referred to as "beer nuts."

## How to Grow

**Soils:** Peanuts prefer light, humus rich, sandy soil. However, most soils are suitable for production when amended with enough compost to allow for good root growth, peg penetration and pod development. A soil analysis reveals potential soil problems and can be useful for those beginning a garden. For more information on how to test soil, visit the USU Analytical lab at [www.usual.usu.edu](http://www.usual.usu.edu).

**Soil Prep:** Before planting, incorporate 2 to 4 inches of well-composted organic matter 6 inches deep into the soil.

**Plants:** Peanuts are grown from seed and not transplants. Seeds can be purchased online, via mail order or possibly from a local vendor. One pound of seeds will seed a 75 foot row.

**Planting and Spacing:** Seeds can be left in the shell (hull) or removed. When removed, seeds germinate more quickly, but if the thin, red seed coat is cracked or damaged, the seed is most likely dead. Sow seeds 1½ inches deep, 18 inches apart, with 4 seeds per mound when soil temperatures are above 65° F (usually around the last frost). Rows should be spaced every 24 inches.

It is possible to obtain greater yields by using season extending gardening techniques. These include use of hoop houses, cold frames and/or floating row cover. If plastic mulches are used, they must be removed from the soil when plants begin to flower.

As plants grow, hill them in the same fashion as potatoes. This involves mounding 6 inches of soil around plants when they reach a foot tall. Hills allow room for the underground pods to develop and provide added soil drainage. After hilling, place 3 to 4 inches of compost or grass clippings around and between plants. This will help retain soil moisture, control weeds and keep the soil at an even temperature.

**Irrigation:** Peanuts require uniform soil moisture levels throughout the year, so apply 1 to 2 inches of water per week. Mulch around the plant will conserve soil moisture. Irrigate so that moisture goes deeply into the soil. Irregular watering (over or under) can cause plants to become unhealthy and will reduce yields.

**Fertilization:** The application of nitrogen fertilizer to peanuts is usually not necessary because they obtain sufficient nitrogen via a beneficial relationship formed with nitrogen fixing rhizobium bacteria. These bacteria, while living in nodules formed on the roots, convert nitrogen from the air into a usable form for the plant. For this to occur, peanuts must be pretreated with an inoculant containing the bacteria prior to being planted. Compatible bacteria may be purchased through mail order or online through garden vendors. Powder

inoculants may be better for the home gardener due to ease of use as compared to liquid forms.

When peanuts are not previously inoculated with bacteria, they may benefit from applications of 16-16-16 or 20-0-0 at a rate of 1 lb of fertilizer per 100 square feet. Apply when they are first planted and again 1 month later. More specific soil testing information can be obtained through soil analysis. Information about this can be found at [www.usual.usu.edu](http://www.usual.usu.edu).

## Problems

**Weeds:** Use 2 to 3 inches of mulch around plants to control weeds. If weed control is needed after pegs have penetrated the soil, cultivate no more than a few inches deep to protect developing underground seeds.

**Insects and Other Pests:** Peanuts are usually not impacted by insect pests. Some of the more common pests that may be seen include wire worms, army worms, cut worms, aphids, thrips and corn ear worm. If these problems arise, contact your local Extension office for assistance.

Mice and other ground dwelling animals sometimes feed on developing seeds while still underground. Additionally, harvested, drying nuts may be fed on by various animals. Exclusionary measures may be needed to protect developing and harvested nuts from these animals.

**Diseases:** Locally, peanuts do not commonly contract many diseases. Maintain proper plant health to minimize risk. If plants exhibit disease symptoms, help identifying the disorder can be at your local Extension office.

## Harvesting and Storage

- Peanut plants should be lifted from the ground in the fall when plant leaves begin to yellow. This is usually around the first autumn frost. Check the soil from around the pulled plants to ensure all pods have been collected.
- Peanuts should be left on the plant and dried for 1 to 2 weeks in a well ventilated area. Remove pods from the plants after this period of time, and dry for an additional 2 to 3 weeks in shallow trays in a warm area with low humidity (preferably below 60%-70% relative humidity). Total drying time will be around 4 weeks under average conditions. Do not store nuts at temperatures above 95 ° F. Throw away any diseased or otherwise unhealthy looking nuts.
- Once sufficiently dry, nuts can be roasted by placing them on cookie sheets or in shallow pans

and cooking in the oven at 350° F. This will loosen the seed coat surrounding the nut. Roasting time will vary from 13 to 18 minutes. Shelled nuts require a shorter amount of time. Roast a few test batches before processing the entire harvest to determine an appropriate roasting time.

- Store roasted nuts in air-tight containers. At room temperature, self-harvested nuts should be consumed within 3 to 4 weeks. Refrigerated, roasted nuts can be stored for 6 to 12 months at 40°F. Peanuts can also be stored in air-tight, freezer safe containers for at least a year.



Newly harvested peanuts (Photo: Magnus Manke)

## Productivity

Trials performed in Wisconsin and Ontario, Canada, found that between 4 to 7 lbs of nuts in pods can be obtained per 100 square feet of plants.

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This publication is issued in furtherance of Cooperative Extension work, acts of May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture, Noelle E. Cockett, Vice President for Extension and Agriculture, Utah State University. (Horticulture/Vegetables/2010-01pr)

## Nutrition

Peanuts are rich in protein and unsaturated fat which can lower LDL-cholesterol levels. Additionally, they are a good source of vitamin E, niacin, folate, thiamin, magnesium, copper phosphorus, potassium, zinc and iron.

## Frequently Asked Questions

**How can I increase peanuts yields?** Peanuts grow best at temperatures around 85° F. To increase yields, avoid planting in frost pockets and consider using season extending gardening methods.

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