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02-11

AgriLIFE EXTENSION
Texas A&M System

Easy Gardening

SPINACH • OTHER GREENS • SPINACH • OTHER GR

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Greens include all leafy green vegetables. They are often called potherbs and are grown mostly for their tender leaves. Green vegetables include spinach, New Zealand spinach, Swiss chard, dandelion, and kale.

Most greens are cool-season crops and must be grown in the early spring or fall in Texas. Some greens, especially kale, will withstand temperatures below freezing and can be grown all winter in many areas.

Site selection

Greens grow best in a well-drained soil with lots of organic matter. They prefer full sunlight but will tolerate partial shade.

Soil preparation

Spinach has a deep taproot so the soil must be worked at least 8 to 10 inches deep. Dig the soil in the early spring when it is dry enough not to stick to garden tools. Break up large clods and remove trash and weeds. Work the soil into planting beds about 4 inches high. This is especially important in heavy soils. Add compost or other organic matter before digging the soil.

Fertilizing

Spinach grows best when given plenty of fertilizer. Adequate nitrogen is needed to develop the dark green leaf color. Before planting the seeds, apply a general garden fertilizer such as 10-10-10 at the rate of 2 to 3 pounds per 100 square feet. Or, fertilize as directed by a soil test report. Mix the fertilizer into the soil about 3 inches. Spinach does best when the fertilizer is applied in a band 3 inches under the row

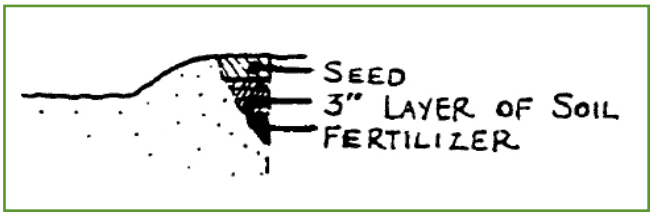

Figure 1. Apply fertilizer in a band 3 inches under the row.

(Fig. 1.) Apply ¼ to ⅓ cup of fertilizer for every 10 feet of row. Fertilize again about 30 days after the plants come up.

Varieties

Collards
- Arcadia
- Blue Max
- Champion
- Flash
- Georgia Southern
- Vates

Kale
- Dwarf Blue Curled Scotch
- Dwarf Blue Curled Vates
- Green Curled
- Rebor

Mustard
- Early Mizuna
- Florida Broadleaf
- Green Wave
- Large Smooth Leaf
- Southern Giant Curled
- Tender Green

Spinach
- Bloomsdale
- Melody
- Space
- Tyee

Swiss Chard
- Bright Lights
- Fordhook Giant
- Lucullus
- Rhubarb Chard
- Rhubarb Red
- Ruby

Other Specialty Greens
- Malabar Spinach
- Pac Choi
- Radicchio
- Tatsoi
- Molokhia
- New Zealand Spinach

Planting

Plant spinach as early as the soil can be worked in the spring or in August or later in the fall. The high temperatures and long days of summer cause spinach to "bolt" or produce a seed stalk that makes it unusable tor food. Malabar and New Zealand spinach are good substitutes for spinach during hot weather, as they tolerate high temperatures but don't tolerate colder temperatures. Seeds of Malabar and New Zealand spinach are slow to germinate. Plants can be grown indoors and transplanted into the garden after the last frost in spring.

Swiss chard is sometimes called summer spinach but is actually a member of the beet family and has a taste similar to that of beet greens. Swiss chard is very tolerant of heat and light freezes and can be harvested all year in many areas of Texas.

Kale is a cool-season crop that should be planted in early spring or late fall. It is sometimes called "flowering cabbage" and makes a good border for flower beds or sidewalks.

Unless you want to freeze or can spinach, it is best to plant several short rows (10 to 15 feet long) 10 to 14 days apart instead of planting all at once. This is called succession planting. It evenly distributes your harvest rather than having all the harvest at once.

Use a hoe handle, stick, or similar tool to make planting furrows about ½ inch deep and 1½ to 2 feet apart down the bed. Plant seeds about 1 inch apart down the row and cover with loose soil or compost. For the fall crop, cover with sand or other light-colored material to reflect heat and keep the soil cooler.

Figure 2. Some greens require support.

Other greens require different spacing and support. Plant New Zealand spinach in rows 3 feet apart and thin to 2 feet between plants. As Malabar is a vining plant, it should be planted next to a fence or trellis for support, with 10 to 12 inches between plants (Fig. 2.) Dandelion is a perennial that comes back each year from the root. It becomes a weed if left unattended.

Greens can also be planted in one big block rather than in rows by spreading seed on a bed 18 to 20 inches wide and covering them with soil. This method allows more plants to be grown per foot of row but makes weed control harder because they must be pulled by hand

Care during the season

Keep plants free of weeds, especially when they are small, because weeds use water and nutrients the growing crop needs. Hand pull weeds close to the crop so that hoeing won't cut vegetable roots and cause plants to wilt. After the plants come up and become crowded in the row, begin thinning (Fig. 3). Leave kale plants 1 foot apart, chard 6 inches apart, and spinach 3 to 4 inches apart. Do not throw away thinned plants, as they make excellent tender greens.

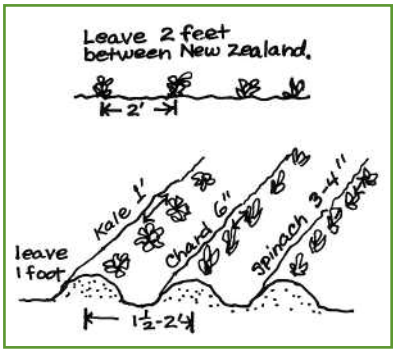

Figure 3. Thin plants to the proper spacing.

Water plants thoroughly each week, and do not allow the plants to wilt. Water is needed more often in hot weather and in light soils. When watering, make sure to thoroughly soak the soil. This encourages crop roots to grow deeper into the soil, which helps them withstand dry periods better. Mulches help prevent soil from losing moisture and are good at controlling weeds.

About 30 days after the plants come up, scatter ¼ cup of garden fertilizer beside the plants for every 10 feet of row and water thoroughly.

Diseases

Spinach often shows some disease damage on the leaves in cool, damp weather. Do not plant spinach in the same place in your garden more than once every 2 or 3 years. If your plants get spots on the leaves, ask your county Extension agent about disease control.

Before applying any pesticide, always read the label. Follow cautions, warnings and directions and observe waiting periods between spray applications and harvest.

Insects

Name and description		Control
 Leaf miners	Small yellowish larvae; tunnel inside leaves and cause white trails to form	Sevin® permethrin
 Aphids	½ inch long; soft bodied; green, pink, red or brown; usually on undersides of leaves; suck plant juices	azadirachtin garlic juice extracts insecticidal soaps neem oil

Harvesting

Harvest spinach when plants are 6 to 8 inches tall. Pull up the entire plant in the spring, since it stops producing in hot weather. For the fall crop in milder areas of Texas, clip the leaves just above the crown about 1 to 2 inches above ground level. Water and fertilize lightly and the plants will continue growing. Harvest lower leaves of chard and kale as the leaves grow. These plants also will continue growing (Fig. 4). Harvest the tips of Malabar spinach plants when they are 3 to 4 inches long. Dandelion, a common weed in lawns and fields, can be used as spring greens when 4 to 6 inches tall. Dandelions develop a strong flavor if left too long. If you harvest dandelions from outside your garden, be sure they have not been sprayed with a weed killer.

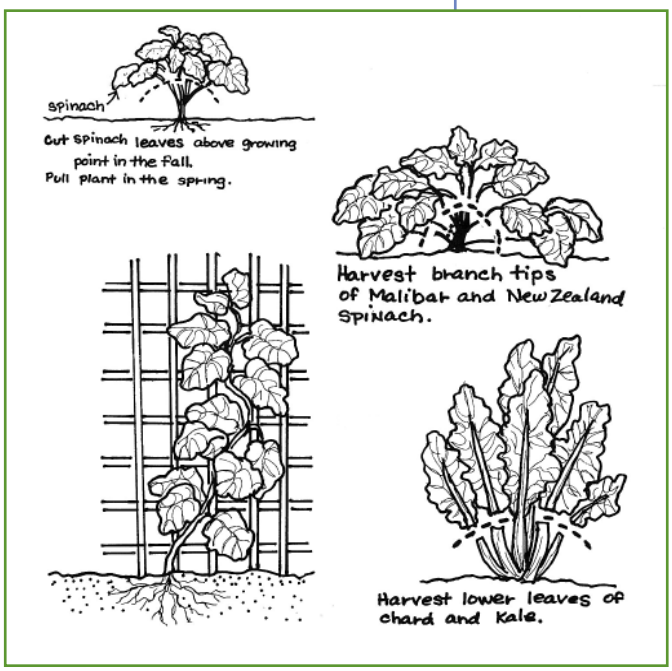

Figure 4. **Harvest the entire spinach plant in the spring. In the fall, harvest individual leaves and plants will continue to grow. Harvest the lower leaves of chard and kale. Harvest the branch tips of Malabar spinach when 3 to 4 inches long.**

Serving

Spinach and other greens contain lots of Vitamin A and minerals when cooked properly. Dandelion contains more Vitamin A than any other vegetable. Cook greens in a small amount of water or oil until tender. Your county Extension agent has information on preparing and serving greens.

Cleanup

Remove all unharvested plants from the garden and place them in a compost pile. Or, turn them deep under the soil, which helps control diseases and builds the soil.

Acknowledgments

The original version of this publication was authored by Frank Dainello and Jerry Parsons. Insect photos courtesy of Bart Drees, the Texas AgriLife Extension Service.

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Produced by AgriLife Communications, The Texas A&M System

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Issued in furtherance of Cooperative Extension Work in Agriculture and Home Economics, Acts of Congress of May 8, 1914, as amended, and June 30, 1914, in cooperation with the United States Department of Agriculture. Edward G. Smith, Director, Texas AgriLife Extension Service, The Texas A&M University System.

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