



Spinachpalooza!

Seasonal Slotting & Variety Traits



Johnny's Research Farm

Located in Albion, Maine (USDA zone 5b)

- **200 Acres Managed**
- **11 Farm Sites**
- **80+ Acres Consisting of:**
 - **Trial Crops**
 - **Breeding & Seed Production**
 - **Cover Crops**



Johnny's Research Farm

Located in Albion, Maine (USDA zone 5b)

3,225

Varieties planted and evaluated at our farm

30 miles

Bed feet sown for our trials

175+

New varieties selected for the 2026 season

Note: Additional trialing occurs on partner farms across the country. The varieties planted and miles of bed feet listed above only represent the portion of trialing conducted on our home farm.



OUR PRESENTERS



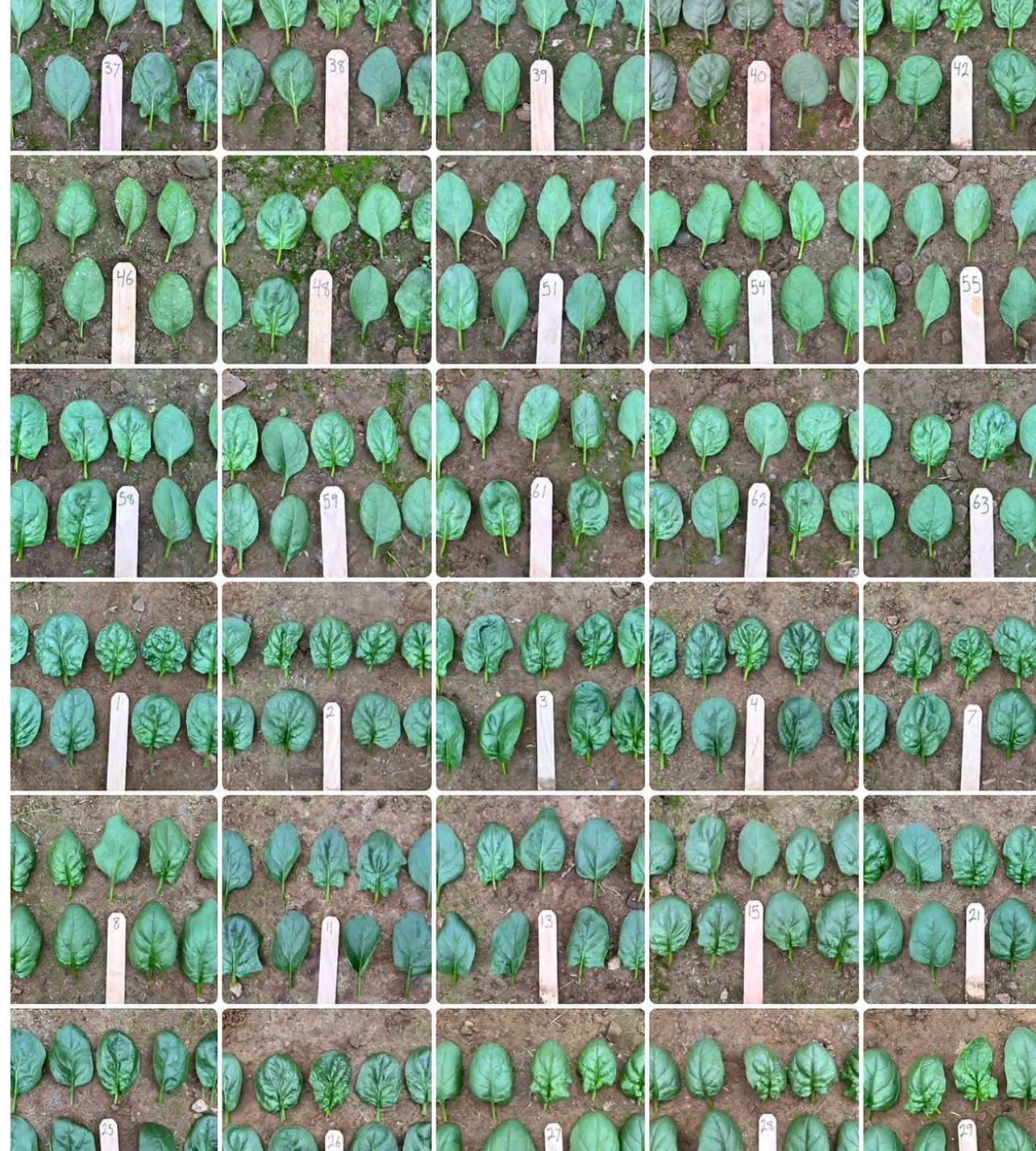
Rachel Katz
Trial Technician



Brenna Chase
Product Manager

Johnny's Spinach Trialing Program

- **5 trials a year**
 - Spring
 - Summer
 - Fall
 - Winter Tunnel
 - September Seeding
 - February Seeding
- **Primarily precommercial varieties**
 - Advance planning for DMR breaks
 - Testing in novel conditions
- **Working with both large and small breeders for best varieties**



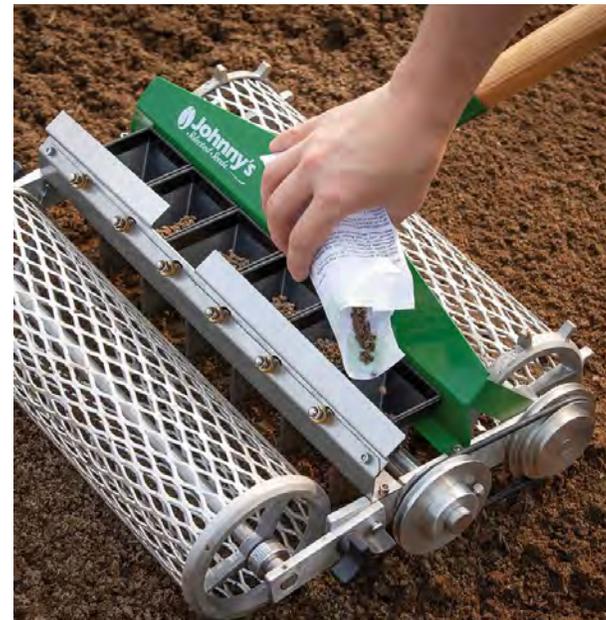
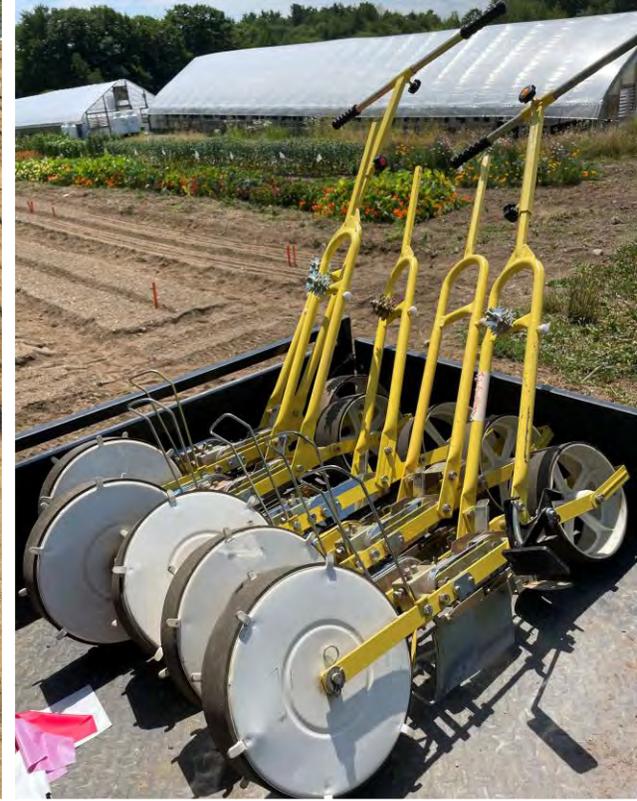
Planting spinach

Best to direct seed

- Jang JP-1
 - Choose roller based on seed size
 - MJ-24, L-24, LJ-24, LV-24
- Earthway
 - Radish, Beets/Swiss Chard
 - Best choices but not precise
- 6 row seeder
- Pinpoint seeders

Transplanting can work

- Fall to manage warm soil temps
- Spring to manage wet fields
- Paperpot Transplanter



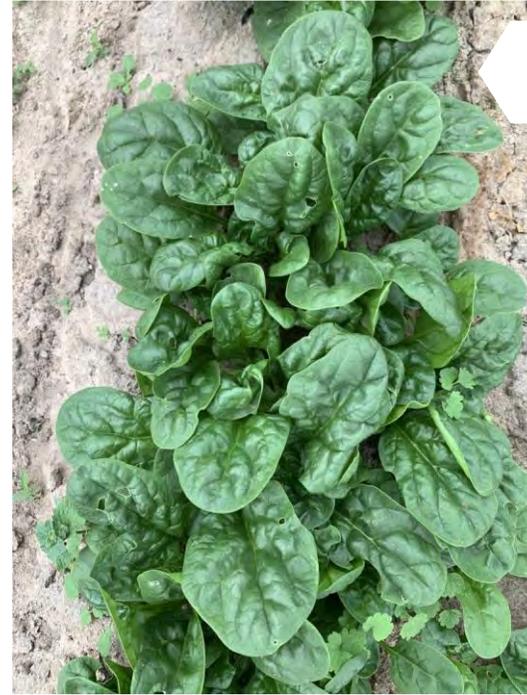
Choosing Varieties

Spinach Leaf Types

- Savoy
- Semi-Savoy
- Smooth Leaf
- Oriental/Asian
- Specialty/Red Vein



Hammerhead
full savoy



Gerenuk
semi-savoy



Space
smooth



Flamingo Improved
Oriental/Asian Leaf



Red Snapper
specialty/red vein

Choosing Varieties

Speed

- Fast growth/Fast bolting
 - Best for fall and winter
- Slow growth/slow bolting
 - Best for spring and summer
- “Unicorn”:
 - Moderate growth/slow bolting
 - All year round

Plant habit

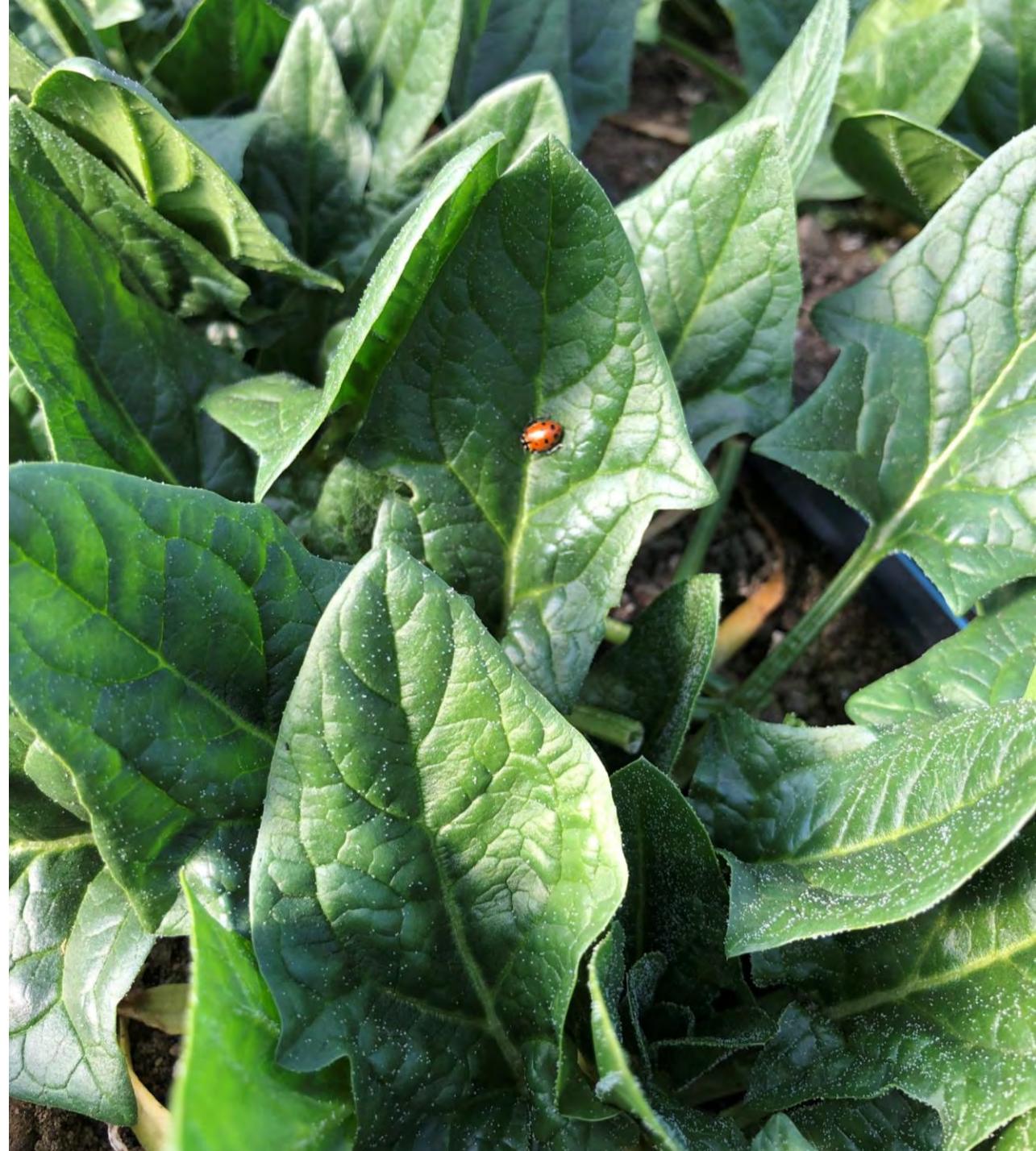
- Upright or prostrate
- Long or short petioles

Leaf shape

- Round
- Oval
- Angular

Color

Disease resistance



Choosing Varieties

Seasonal considerations

- Day length
- Soil temperature
- Stressors
 - Moisture
 - Temperature

Mitigation efforts

- Spacing/plant density
- Harvest size
- Irrigation
- Variety Selection



When can I grow spinach?



Spring

Relatively high bolting pressure

- Days getting longer
- Temperatures increasing

Soil still cool

- Germinates between 45-68
 - Takes a long time to germ at colder temps
 - Won't germ at all at higher temps
 - [Soil thermometers](#)
- Cold wet soil
 - Pathogen emergence
 - Stunting



Spring

Best spring varieties

Fast growing/fast bolting

(1 harvest)

- Gerenuk
- Rangitoto
- Tragopan
- Flamingo Improved
- Hammerhead
- Equinox
- Bloomsdale

Slow growing/slow bolting

(multiple harvests)

- Lizard
- Seaside
- Red Tabby

All season

- Space
- Sunangel
- Tarsier



Summer

High bolting pressure

- Long days
- Heat and humidity

Increased soil temps

- Evaporative Cooling
- Tarping
- Shade Cloth
- Transplanting

Best summer varieties

(Slow growing/slow bolting)

- Seaside
- Lizard
- Red Tabby

(All season)

- Space
- Tarsier
- Sunangel



Lizard



Seaside



Red Tabby

Fall

Decreased bolting pressure

- Shortening days
- Cooler weather

Warm soil (summer sowing)

Best varieties for fall

Fast growing/fast bolting (multiple harvests)

- Gerenuk
- Rangitoto
- Tragopan
- Flamingo Improved
- Hammerhead
- Equinox
- Bloomsdale

All season

- Space
- Sunangel
- Tarsier



Winter

Cold weather

- Slow growth
- Debunking the Persephone period

Very low bolting pressure (until the daylength starts increasing)

Increased disease pressure

- Cladosporium
- Downy Mildew

Ways to maximize production

- Use row cover at night when temperatures drop
- Irrigate on sunny days
- Venting during the day
 - Decrease moisture on leaves
 - Minimize temperature fluctuations



Winter

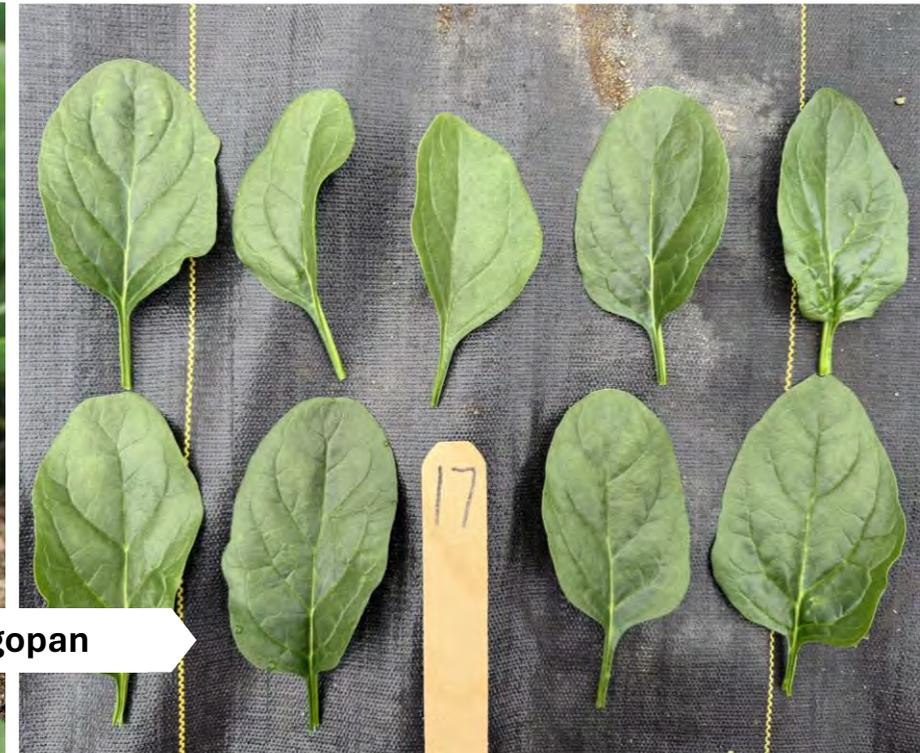
Best varieties for winter production

(Fast growing/fast bolting)

- Tragopan
- Gerenuk
- Rangitoto

(All season)

- Space
- Sunangel
- Tarsier



All-season varieties

Moderate growth/moderate or slow bolting

- Space
 - Fast growing/slow bolting
- Sunangel
- Tarsier



Sunangel



Tarsier



Space

Location Disclaimer

This specific seasonal info mostly pertains to latitude 35 and N*

- North
- Central
- Mid Atlantic
- Northerly South

* Some of these places will still have difficulty growing summer spinach.

- Other recommendations are still valid.

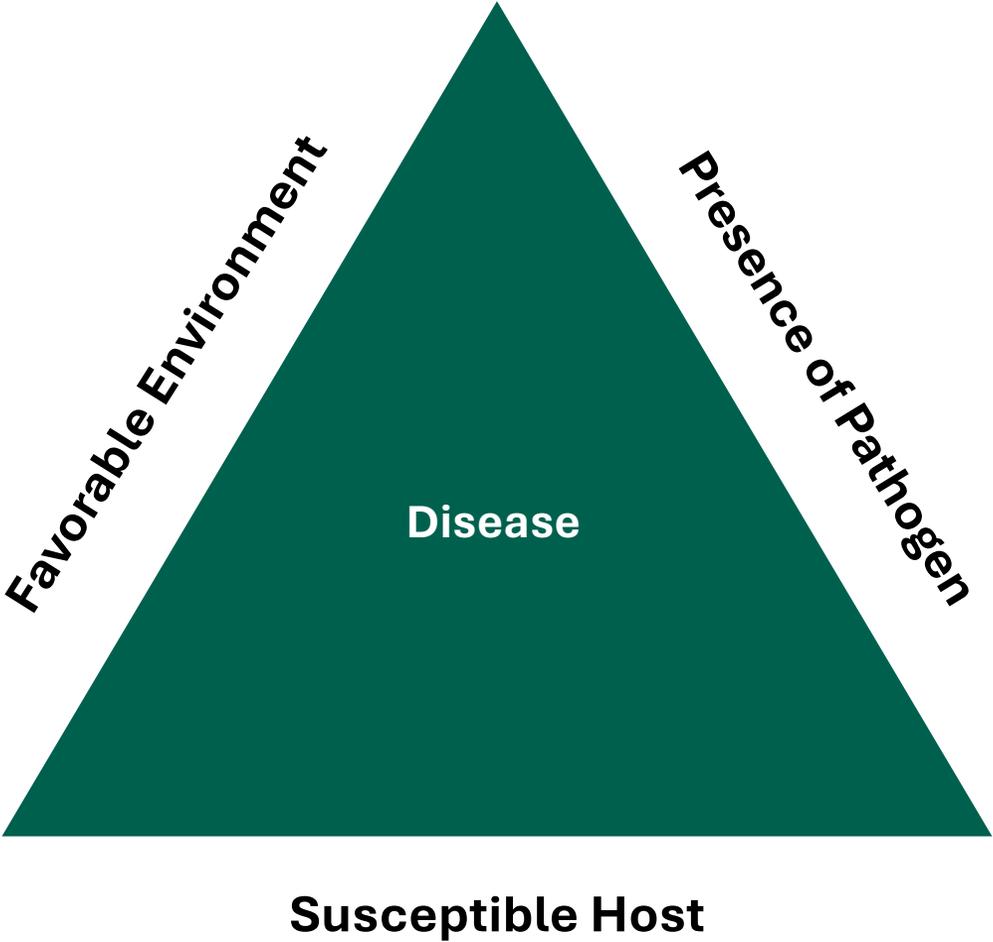
Hotter climates have very different seasonal considerations

- South Carolina
- Georgia
- Florida
- Texas
- Southern Arizona
- Desert Southwest
- Higher altitude regions in these places may be more similar to what was discussed above.



If you live in a place where it's hard to grow greens in the summer because of the heat and humidity, you will also have trouble growing summer spinach, even with varieties slotted for summer production. However, you can still grow our recommended spring and fall/winter varieties in their seasonal slots.

Plant Pathology 101



Damping off

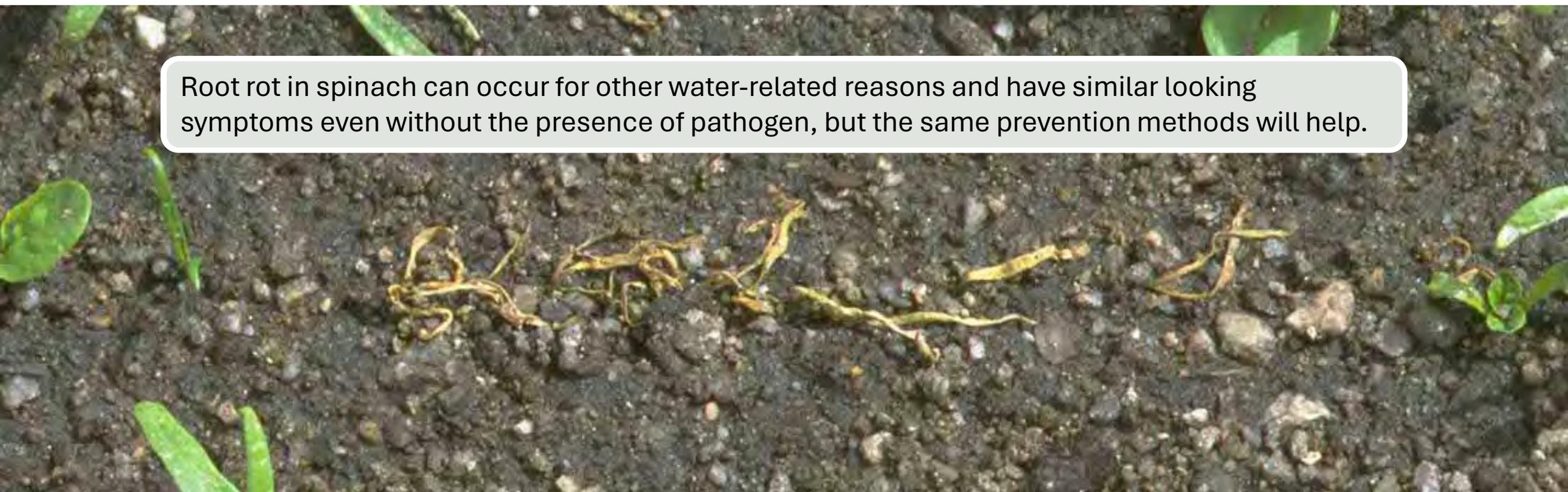
A common seedling disease caused by:

- Pythium
- Fusarium
- Rhizoctonia

Spinach is very susceptible

Prevention

- Water management
- Raised beds
- pH – neutral
- Crop rotation



Root rot in spinach can occur for other water-related reasons and have similar looking symptoms even without the presence of pathogen, but the same prevention methods will help.

Cladosporium leaf spot

- Fungus active in cool, humid conditions
- More common in winter tunnels
- Spots make leaves unmarketable
- Airborne: can spread throughout your tunnel
 - Be careful about pulling out/disposing of infected plants
- Gerenuk has field tolerance



Spinach Downy Mildew

- Common name for *Peronospora effusa*
- Oomycete (not a true fungus)
- Races 1-20
- Drives a lot of spinach breeding
- Needs cool, wet conditions

Prevention:

Decrease each side of the disease triangle!

- Environment
 - Keep leaves dry
 - Open rowcover
 - Increase ventilation
 - Time irrigation
- Pathogen
 - Prevent green bridge
 - Needs a living host
- Susceptible host
 - Choose resistant varieties



RESOURCES

[Johnny's Spinach Varieties](#)

[Spinach - Key Growing Information](#)

[Spinach Varieties Comparison Chart](#)

[Spinach Succession Planting Program](#)

[Video | Winter Spinach Varieties from Johnny's](#)

[Spinach – Jang Roller Starter Pack](#)

[Webinar | Jang Seeder: How to Maximize its Potential](#)

[Video | Jang JP-1: Anatomy & Use](#)

[Seeders - Johnnyseeds.com](#)

Thank You
We hope you enjoyed our presentation

