



Asparagus

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Varieties

Apollo, Atlas, Jersey Gem, Jersey Giant, Jersey Knight, Martha Washington, Purple Passion, UC 72, UC 157.

Soil Preferences

Deep sandy loam or clay loam with good drainage; pH 6.0-7.5; will tolerate saline conditions better than most other vegetables.

Optimum Growing Conditions

Cool season crop, does best at temperatures of 60-75°F; most varieties require a dormant period.

Establishment Methods

Planting Method	From seed, transplants or 1-yr-old crowns (preferred)
Optimum Time	Soil seed zone temperature above 70°F
Seeding Rate	2-3 lbs/acre; depth 1-1.5"
Approx seed/oz	1,200
Seedling spacing	1-2" in-row with 2 rows 1.5-2' apart/80" bed.
Transplant (crowns)	After danger of frost has passed, in furrows 8-10" deep and 4-5' apart, with crowns spaced 14-18" in-row spacing

Fertility/Fertilization

Rates are actual lb/acre N₂, P₂O₅, and K₂O (base actual rates applied on soil test results).

Crop Establishment	200-150-100 (followed by 100 lbs/acre N for the first three years)*; phosphorus placed at bottom of furrow 0.5 - 1" beneath crowns
Established Crop	N - 50 P - 100 K - 100 Plus 80 lbs 2 weeks prior to end of harvest. Broadcast in early spring (prior to growth initiation) and disk lightly.

* Ammonium nitrate is very stable and least likely to evaporate. Urea and ammonium sulfate evaporate if not incorporated.

Water/Irrigation

10-18"; critical time is during planting establishment and during fern development.

Pest Management

Asparagus Diseases and Common Name of Fungicidal Controls

DISEASE	FUNGICIDE*	OMRI LISTED FUNGICIDE**
Cercospora blight and leaf spot	Chlorothalonil, Mancozeb, Potassium Phosphite	Trilogy
Crown rot	Chlorothalonil, Hydrogen Dioxide, Mefenoxam, Metalaxyl, Phostrol (Phosphorous Acid, Mono And Dibasic Sodium, Potassium, And Ammonium Salts), Potassium Phosphite	<i>Streptomyces lydicus</i>
Gray Mold (<i>Botrytis cinerea</i>)	Fenhexamid	Azadirachtin <i>Bacillus subtilis</i>
Rust	Chlorothalonil, Mancozeb, Myclobutanil, Sulfur, Tebuconazole	<i>Bacillus pumilus</i> <i>Streptomyces lydicus</i>
Stemphyllium Purple Spot	Azoxystrobin, Chlorothalonil, Trifloxystrobin	
Sclerotinia		<i>Coniothyrium minitans</i>
Nematode	Telone, Azadirachtin, Chloropicrin, Metam-Potassium, Metam-Sodium, Sesame Oil	

Asparagus Insect Pests and Common Name of Insecticidal Controls

INSECT	INSECTICIDE*	OMRI LISTED INSECTICIDE**
Aphids	Malathion, Permethrin	Azadirachtin
Armyworms		<i>Bacillus thuringiensis subspecies kurstaki</i> Checkmate (pheromone)
Asparagus beetles	Carbaryl, Malathion, Permethrin, Petroleum Oil, Rotenone	Kaolin Pyrethrins Spinosad
Cutworm	Azadirachtin, Carbaryl, Methomyl, Permethrin	Azadirachtin <i>Bacillus thuringiensis subspecies kurstaki</i>
Grasshopper	Carbaryl, Piperonyl Butoxide	Azadirachtin Kaolin
Thrips	Carbaryl, Permethrin	

Weeds and Common Name of Herbicidal Controls

WEED	HERBICIDE*	OMRI LISTED HERBICIDE**
Preplant Incorporated	Metam-Potassium, Metam-Sodium, Napropamide, Trifluralin,	
Preemergence (prior to spear emergence)	Diuron, Flumioxazin, Linuron, Mesotrione, Metribuzin, Napropamide, Norflurazon, Bayonet, Devrinol, Karmex, Lorox, Sencor, Sinbar, Solicam, Terbacil, Treflan	
Postemergence	2,4-D, Clethodim, Dicamba, Diquat, Diuron, Fluazifop-P-Butyl, Flumioxazin, Glyphosate, Halosulfuron, Linuron, Mesotrione, Metribuzin, Paraquat, Pelargonic Acid, Sethoxydim, Terbacil Arrow, Banvel, Buccaneer, Callisto, Lorox, Fusilade, Poast, Stinger	Cinnamon Oil, Citric Acid, Clove Oil, Lemongrass Oil

* The above is a partial listing of controls intended as examples. Some labels may have been revoked since the publication of this guide. Refer to product labels for specifics and use accordingly. Ensure that products with one of the listed active ingredients are registered for the crop it is to be used on. Failure to do the above may result in crop injury, death and/or citation for law violation. Humans, animals and the environment may also be adversely affected by misuse.

** As stated in §205.206 of the National Organic Standards, pest management decisions should follow a hierarchical approach, which should be defined in a farm's organic systems plan. Please ensure that you have followed the appropriate steps and any product to be used in certified organic production systems has been approved by your certifying agent.

Harvest

Days after planting	1 year
Normal method	Hand harvested when spears are 9-10" in length with a little white butt (at least half of the length should be from above ground area). Cool immediately. Place butts in cold water or in contact with other moisture holding material to prevent moisture loss (maintenance of quality).
Grades	Based on trimmed spear diameter: Very Small - Medium - 1/2-11/16" Large - 1/16-14/16" Very large - >14/16"
Packaging	<ul style="list-style-type: none"> • 32 lb crates (loose pack) • 15-17 lb half-pyramid crates • 24-25 lb cartons holding 16 1.5 lb packs • 30 lb pyramid wire-bound crates holding 12 2 lb bundles.
Anticipated yield/acre	2,500 lbs

Transit Conditions

32-36°F (deteriorates rapidly at 40°F) at 95-100% RH. 3 week shelf-life.

Comments/Production Keys

- Plant crowns with buds up into moist soil.
- Spears easily damaged by sand blasting; wheat or oat windbreaks are suggested between rows.
- Properly managed crop can be productive for 10 to 15 years.
- Do not plant in field where perennial weeds such as johnsongrass, bermudagrass or nutsedge are known to be a problem.
- Lime to a pH 6.5 or above (East Texas).
- Asparagus is very deep rooted (10-12'), can withstand droughty conditions; avoiding drought stress during first two years is critical to establishment; supplemental irrigation may be needed to maintain good fern growth.
- Do not cultivate established planting; control weeds with herbicides.
- Shred yellowing or frozen fern growth in mid-winter or early spring depending upon location.
- Normal harvest period is 3 to 5 weeks.