

# Crop Recommendations

## ASPARAGUS

### VARIETIES

**All male hybrids:** Jersey Gem, Jersey Giant, Jersey Knight, and Jersey King.

**Other hybrids:** Atlas and Purple Passion (specialty markets only).

**Open pollinated:** Viking KB3, Mary Washington.

Hybrid varieties have improved vigor, disease tolerance, and higher yields, and are grown from seeds or crowns. Order well in advance.

### PLANTING, SPACING, CULTIVATING

**Crowns:** Use only 1-year old crowns. Transplant April 15 to May 15. Use 4- to 5-foot rows with crowns 12 to 16 inches apart. Set the crowns in 8-inch furrows in light soils and 5- to 6-inch furrows in heavy soils. Cover with 2 to 3 inches of soil. Select deep, well-drained sandy loam soils. Hybrids should be planted slightly deeper. Start cultivating when spears begin to emerge, and continue periodically until furrows are level at end of first season.

**Seedling transplant:** 10- to 14-week old seedling transplants can be mechanically transplanted. Apply 4 oz. of transplant solution (10-52-17 or 9-45-15) to each transplant. Transplant in either spring (early May) or fall (early to mid-September).

### AGE FOR HARVESTING

Harvest only 2 or 3 times in spring 1 year after transplanting. Thereafter, harvest for about 2 months in the spring. Allow the ferns to grow vigorously after this period to accumulate food reserves for the next season. As much care should be put into maintaining a healthy fern as into harvest.

### FERTILIZING

**Lime:** To maintain a soil pH of 6.7 to 7.0. If possible, apply lime the year before planting.

**Preplant:** N, 70 lb. per acre; P<sub>2</sub>O<sub>5</sub>, 25 to 200 lb. per acre; K<sub>2</sub>O, 0 to 250 lb. per acre. Adjust according to soil type, previous management, and soil test results for your state. Broadcast the fertilizer, and plow it under when preparing the land for the planting furrows. Before planting the new crown, apply 100 lb. per acre of 8-32-0, or similar high phosphate starter fertilizer, in the bottom of the trench. Cover with 1 inch of soil before setting crowns.

**Yearly:** Each year after harvest, apply 50 lb. N per acre by broadcasting and incorporate by lightly tilling. No P<sub>2</sub>O<sub>5</sub> or K<sub>2</sub>O is needed provided adequate fertilization was achieved prior to planting.

| DISEASES CONTROLLED             | TREATMENT   | COMMENTS  |
|---------------------------------|---|---|
| Fusarium crown and root rot     | Dip roots in a solutions of Manzate 75DF at 1 lb. per 100 gal. or Manex II at 0.8 qt. per 100 gal.  | Obtain crowns from a reliable source. Avoid fields with a history of crown and root rot. Disease is promoted by acid (low pH) and poorly drained soil.          |
| Rust and leaf spot (Cercospora) | Several chlorothalonil products are labeled for rust and Cercospora leaf spot including Bravo, Echo, and Equus. Apply 1.8 to 3.6 lb. per acre for dry formulations and 2 to 4 pt. per acre of flowable formulations. An exception is Echo Zn, which should be applied at 3 to 5 pt. per acre. | Apply chlorothalonil formulations after harvest and at 14-28 day intervals. Protection of ferns during summer months is essential for good yields. 190 day PHI. |

| DISEASES CONTROLLED                              | TREATMENT  | COMMENTS   |
|--|--|--|
| Rust and leaf spot ( <i>Cercospora</i> ) (cont.) | Dithane or Penncozeb at 2 lb. per acre for dry (WP, DF, or DG) formulations or 1.6 qt. per acre of flowable (F) formulations.<br><br>Nova 40W at 5 oz. per acre. | Apply protective fungicides after harvest at 7-10 day intervals. Protection of ferns during summer months is essential for good yields the following season. 180 day PHI.<br><br><b>Rust only.</b> Begin applications to the developing ferns after harvest. Repeat on a schedule of less than 14 days. 24 hr. REI. 180 day PHI. |
| Phytophthora crown and spear rot                 | Ridomil Gold 4E at 1 pt. per acre over bed.<br><br>Aliette WDG 5 lb. per acre.   | Apply 30-60 days before harvest. Make second application just before harvest. 1 day PHI.<br><br>Apply once per season to fully expanded leaves. 110 day PHI.   |

| HERBICIDE*          | TREATMENT**   | COMMENTS  |
|---------------------|---|---|
| <u>PREEMERGENCE</u> |   |   |
| Devrinol 50DF       | 4 lb. per acre on light-colored soils (less than 2% organic matter); 8 lb. on other soils.  | Incorporate 1 to 2 in. before weed emergence. Prior to planting succeeding crops, deep moldboard or disc plow. Do not seed alfalfa, small grains, sorghum, corn, or lettuce for 12 months after using Devrinol.   |
| Karmex 80DF         | 1-2 lb. per acre on light-colored soils (less than 2.0% organic matter); 2-4 lb. Karmex on other soils. Use at least 25 gal. of water per acre. | Use after tillage or chopping fern in the spring and again after harvest, if necessary. Apply before weeds emerge. Do not exceed 6 lb. per acre per year. 6-8 wks. residual activity. <b>DONOT</b> apply to young plants during first year.   |
| Sencor 4F or 75DF   | 1 to 2 qt. per acre of 4F. 1.3 to 2.7 lb. per acre of 75DF.   | Established plantings only. Apply after tillage or chopping fern in spring and again after harvest before fern emergence, if necessary. Apply before weeds emerge. Total dosage may not exceed 2 lb. a.i. per acre per year. 2 sprays are necessary for season-long sandbur control. 6-8 wks. residual. 14 day PHI. |

\* For specific weeds controlled by each herbicide, check table on page 29.

\*\* Rates given are for overall coverage. For band treatment, reduce amounts according to the portion of acre treated.

**ASPARAGUS**

**WEED CONTROL (CONT.)**

| HERBICIDE*                  | TREATMENT**   | COMMENTS   |
|-----------------------------|---|--|
| <u>PREEMERGENCE (cont.)</u> |   |  |
| Sinbar 80W                  | 1.5 lb. per acre on coarse soils and 2.5 lb. per acre on other soils. Do not use on soils with less than 1% organic matter. Use lowest rate on sandy or sandy-loam soils. | Apply prior to spear emergence in spring or after clean cutting. Do not use more than 1.5 lb. per acre at one time, or more than 2.5 lb. per acre per year. Do not plant any other crop than asparagus within 2 years of herbicide application. 8-12 wks. residual activity. For seedlings apply 300 lb. per acre activated charcoal in a 1-in. band over rows at planting. 5 day PHI. |
| Solicam 80DF                | 2.5 to 5 lb. per acre.  | Apply to asparagus established at least 1 year or more. Apply in fall after cropping fern or in spring before emergence. Use lower rate on coarse, sandy soil. Apply only once per season. Gives 3 to 4 months of residual activity. Suppresses nutsedge.  |
| Trifluralin (4lb/gal)       | 1 to 1.5 qt. per acre.  | Established plantings only. Use higher rates on heavier soils. Apply and incorporate 1 to 2 in. early in spring when spears are at least 4 in. below soil surface. 4-6 wks. residual activity.   |
| <u>POSTEMERGENCE</u>        |   |  |
| Clarity                     | 1 pt. per acre.   | Spray on emerged annual and perennial broadleaf weeds. Can injury desirable plants. Apply in 40-60 gal. per acre immediately after cutting. Discard crooked spears. 24 hour PHI.   |
| Formula 40                  | 1.5 to 2 pt. per acre.  | Spray on emerged weeds before, during, or after the harvest season. The spray during harvest season should be made immediately after harvest to minimize injury. Use drop nozzles for treatments after harvest to avoid spraying the fern.   |
| Stinger 3EC                 | 8 to 11 fl. oz. per acre.   | Apply to emerged broadleaf weeds. Do not apply more than 2/3 pt. per season. 48 hour PHI.  |
| Poast 1.5E                  | 1 to 1.5 pt. per acre plus 1 qt. COC per acre.  | Apply to actively growing grass. Do not apply more than twice per season. Use high rate on quackgrass. 1 day PHI.  |

\* For specific weeds controlled by each herbicide, check table on page 29.

\*\* Rates given are for overall coverage. For band treatment, reduce amounts according to the portion of acre treated.

| HERBICIDE*                      | TREATMENT**   | COMMENTS  |
|---------------------------------|---|---|
| <u>POSTEMERGENCE (cont.)</u>    |   |   |
| Fusilade DX 2E                  | 8 to 12 fl. oz. or 16 to 24 fl. oz. per acre if asparagus will not be harvested within 12 months. Include 1 to 2 pt. COC or 0.5 to 1 qt. nonionic surfactant per 25 gal. spray solution.        | Do not exceed 48 fl. oz. per acre per season or 72 fl. oz. per acre per season if asparagus will not be harvested within 12 months. At least 14 days between application. 1 day PHI.  |
| <u>NON-SELECTIVE HERBICIDES</u> |   |   |
| paraquat                        | 1.6 to 3.2 pt. per acre of 2.5L or 1.7 to 2.7 pt. per acre of 3L plus 1 qt. COC or 4 to 8 fl. oz. nonionic surfactant per 25 gal. spray solution.   | Apply before crop emergence or after last harvest. RUP. 6 day PHI.  |
| glyphosate                      | 0.75 to 1.1 lb. acid equivalent (ae) per acre, equivalent to: 32 to 48 fl. oz. of 3 lb. ae/gal.; 26-40 fl. oz. of 3.7 lb. ae/gal.; 24-36 fl. oz. of 4 lb. ae/gal.; 1.2-1.8 lb. of 64.9% ae WSG. | Apply at least 7 days before first spears emerge in spring or immediately after the last harvest when all spears are snapped off. If spears are allowed to regrow, delay application until ferns have developed. Delayed treatments must be applied as a directed or shielded spray. Direct contact of the spray with asparagus fern may result in serious crop injury. These rates are for annual weeds at application volumes of 10-40 gal. per acre. See label for rates at lower application volumes, for perennial weeds, and suggested adjuvants. |

\* For specific weeds controlled by each herbicide, check table on page 29.

\*\* Rates given are for overall coverage. For band treatment, reduce amounts according to the portion of acre treated.

| INSECTS CONTROLLED  | TREATMENT  | COMMENTS  |  |
|---|--|---|--|
| Asparagus beetles and cutworms  | <i>For control on spears during harvest, to prevent egg laying and feeding injury:</i>                 | Do not treat more than once every 3 days. <b>Bait for cutworms only.</b> 1 day PHI.                   |  |
|   |  | Sevin 80SP at 1.25 to 2.5 lb. per acre, or XLR Plus at 1 to 2 qt. per acre, or 5B at 40 lb. per acre. |  |
|   |  | OR  |  |
|   |  | Lorsban 4E at 2 pt. per acre.   | Do not make more than 1 pre-harvest application. Broadcast with ground equipment. 1 day PHI. |
|   |  | OR  |  |
|   |  | Malathion 57EC at 2 pt. per acre.   | <b>Not for cutworms.</b> 1 day PHI.  |
|   |  | OR  |  |
|   |  | LannateLV at 1.5 to 3 pt. or 90SP at 0.5 to 1 lb. per acre.   | High rate for white cutworm. 1 day PHI.  |
|   |  | OR  |  |
|   |  | Methoxychlor 2EC at 2 to 4.5 qt. per acre.  | <b>For beetle control.</b> 3 day PHI.  |
| OR  |  |   |  |
| Pounce 3.2EC at 2 to 4 fl. oz. or 25 WP at 3.2 to 6.4 fl. oz. per acre.   | Do not exceed 4 applications of Pounce per season. 1 day PHI.  |   |  |
| <p><b>Thresholds</b></p> <p><b>Harvest</b><br/> <i>Asparagus beetle:</i> 5-10% plants infested or 2% of spears w/ eggs<br/> <i>Cutworms:</i> 5% of crowns infested</p> <p><b>Fern</b><br/> <i>Asparagus beetle:</i> 10% defoliation or 50% of plants with larvae</p> <p><b>Fall</b><br/> <i>Cutworms:</i> 1 larva/20 plants</p> | <i>For control on seedlings and fern growth after harvest is over (use lower rates for seedlings):</i> | Apply after harvest has stopped. Do not treat more than once every 3 days.                            |  |
|   |  | Sevin 80SP at 2.5 to 5 lb. or XLR Plus at 1 to 2 qts. per acre.                                       |  |
|   |  | OR  |  |
|   |  | LannateLV at 1.5 to 3 pt. or 90SP at 0.5 to 1 lb. per acre.   | Apply after harvest has stopped.   |
|   |  | OR  |  |
|   |  | Ambush 2EC at 6.4 fl. oz. per acre  | Do not exceed 0.4 lb. a.i. per acre per season.  |
|   |  | OR  |  |
|   |  | Lepinox at 1 to 2 lb. per acre.   | 0 day PHI.   |
|   |  | OR  |  |
|   |  | SpinTor 25C at 4-6 fl. oz. per acre.  | <b>Asparagus beetle only.</b> Do not exceed 18 fl. oz. per acre per season. 60 day PHI.      |