

PEA AND COWPEA

PEA VARIETIES	Season	Comments
Shell Peas		
Spring	Early	
Knight	Early	Short vines
Bolero	Mid	
Green Arrow	Mid to Late	Long holding in field
Lincoln	Mid to Late	Very sweet, home garden variety
Snap peas (edible-podded)		
Sugar Bon	Early	Short vines
Sugar Ann	Early	Short vines
Cascadia	Main	
Supersnappy	Main	Large pods
Snow peas (edible-podded)		
Oregon Giant	Mid to late	Large pods
Snowflake	Late	Dark green
Super Sugar Pod	Late	Long vines

SPACING AND SEEDING

Rows: 32 to 36 inches apart, 6 to 8 seeds per foot of row. Seed: 100 to 150 lb. per acre.

FERTILIZING

Lime: To maintain a soil pH of 6.0 to 6.8.

Preplant: N, for soils with more than 3% organic matter and following soybeans, alfalfa or a grass-legume hay crop no N is needed. For soils with less than 3% organic matter and the above rotation apply 20 lb. N per acre. For peas following corn, rye, oats, wheat, or a vegetable crop apply 40 lb. N per acre. P₂O₅, 0 to 100 lb. per acre; K₂O, 0 to 100 lb. per acre. Adjust according to soil type, previous management, and soil test results for your state. Band at seeding 12-48-0 lb. (N-P₂O₅-K₂O) per acre in bands at least 2 in. below and 2 in. to the side of the row. Do not apply fertilizer with the seed because germinating pea seed is especially sensitive to fertilizer salt injury.

Sidedress N: None needed.

DISEASES CONTROLLED	TREATMENT	COMMENTS
Ascochyta blight	Use pathogen-free seed. 3-year rotation.	
Fusarium wilt	Use resistant cultivars.	
Powdery mildew	Spray 8-10 lb. wettable sulfur OR Dust 325-mesh dusting sulfur	Plant powdery mildew-resistant varieties. Begin application of sulfur at first sign of mildew. Do not apply dust sulfur when temperatures are above 85°F.
Root rot	Rotate fields with a history of root rot for at least 4 to 5 years.	Include a crop of oats (green manure or full season crop) the year before planting peas.

DISEASE CONTROL (CONT.)**PEA AND COWPEA**

DISEASES CONTROLLED	TREATMENT	COMMENTS
Seed rot and damping-off	Use pathogen-free seed. Treat seeds with Captan or Thiram.	Apply seed-treatment just before planting. Follow label directions.
Virus diseases	Use virus-free seed. Control aphids effectively.	Several viruses infect peas, which are spread by aphids.

HERBICIDE***TREATMENT******COMMENTS****PREEMERGENCE**

Trifluralin (4 lb./gal.)	1 pt. per acre on light-colored soils (less than 2% organic matter), 1.5 pt. on darker colored soils.	Apply before planting, and incorporate into soil by double discing or with other equipment to give thorough mixing 3-4 in. deep. Not effective on high organic soils.
Dual Magnum, Dual II Magnum	1 to 2 pt. per acre.	Apply preemergence only. Do not incorporate.
Command 3ME	1.3 pt. per acre.	Pea only. Apply prior to seeding or after seeding before crop emerges.
Pursuit 2L, Pursuit DG	3 fl. oz. 2L or 1.08 oz. DG succulent and dry pea or 4 fl. oz. 2L or 1.44 DG cowpea, plus 8 oz. nonionic surfactant per 25 gal. spray solution.	Apply and incorporate within 1 week of planting or apply within 3 days after planting before crop emerges. Do not apply to fields treated with trifluralin or injury may occur. In MN, do not use north of highway #210. 30 day PHI succulent pea, 60 day PHI dry pea and cowpea.
Pursuit Plus	20 to 30 fl. oz. per acre.	Pea only. Apply before planting and incorporate. Use only in IL, IA, lower peninsula of MI, WI, MN south of highway #210. Apply before June 30. 30 day PHI.
Dacthal 75WP	8 lb. on light soils (less than 1.5% organic matter), 14 lb. on darker soils in at least 50 gal. water per acre.	Apply immediately after planting. Use 50-mesh or larger screens. Not effective on muck soils and other high organic soils. Cowpea only.
Prowl 3.3E, Pendimax	Prowl at 1.2 to 3.6 pt. per acre.	Apply preplant and incorporate 1-2 in. deep. Not effective on muck or peat soil. Rate varies by soil type.

* 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.

PEA AND COWPEA

WEED CONTROL (CONT.)

HERBICIDE*	TREATMENT	COMMENTS
<u>POSTEMERGENCE</u>		
Assure II 0.88E	6 to 12 fl. oz. plus 1 qt. COC per acre.	Apply to actively growing grass. 30 day PHI.
Basagran 4L	0.75 to 1 qt. per acre.	Apply when weeds are small and after peas have 3 pairs of leaves. Do not add COC to peas. Do not apply more than 2 qt. per acre per season. 30 day PHI.
Poast 1.5E	1.0 to 1.5 pt. per acre plus 1 qt. COC per acre.	Apply to actively growing grass. Maximum of 4 pt. per acre per year. Pea only. 15 day PHI.
Pursuit 2L, Pursuit DG	3 fl. oz. 2L or 1.08 oz. DG succulent and dry pea or 4 fl. oz. 2L or 1.44 DG cowpea, plus 8 oz. nonionic surfactant per 25 gal. spray solution. In MN north of Highway #210, use 2 fl. oz. 2L or 0.72 oz. DG.	Apply after peas are 3 inches tall but prior to five nodes before flowering. Do not apply to fields treated with trifluralin or injury may occur. 2 fl. oz. 2L can be applied after trifluralin to suppress nightshade, but may cause injury. If N fertilizer is added, Basagran must be added to minimize crop injury. Refer to Basagran label for rates. 30 day PHI succulent pea, 60 day PHI dry pea and cowpea.
Raptor	3 fl. oz. per acre succulent pea or 4 fl. oz. dry pea and cowpea per acre plus 8 oz. nonionic surfactant per 25 gal. spray solution.	Succulent pea only in MN, WI, and IL. Apply after peas are 3 inches tall but prior to five nodes before flowering. Application to fields treated with trifluralin may increase the chance of injury. COC can be used instead of nonionic surfactant to improve grass control. If N fertilizer or COC are added, Basagran must be added to minimize crop injury. Refer to Basagran label for rates. 30 day PHI succulent pea, 60 day PHI dry pea and cowpea.
Thistrol 2EC	2 to 4 pt. per acre.	FOR CANADA THISTLE CONTROL. Apply when peas have developed 6 to 12 nodes and weeds are less than 3 in. tall. Pea only.

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WEED CONTROL (CONT.)

PEA AND COWPEA

HERBICIDE*	TREATMENT	COMMENTS
<u>NON-SELECTIVE HERBICIDES</u>		
paraquat	1.6 to 3.2 pt. per acre of 2.5L or 1.3 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 or after planting, but before crop emerges. RUP.
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 to 40 fl. oz. of 3.7 lb. ae/gal.; 24 to 36 fl. oz. of 4 lb. ae/gal.; 1.2 to 1.8 lb. of 64.9% ae WSG.	Some formulations permit spot spray application - check label. Apply before or after planting, but before crop emerges. 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.

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INSECTS CONTROLLED	TREATMENT	COMMENTS
Seed corn maggot	Plant seed that has been treated with diazinon or a lindane-diazinon combination.	Adult flies are attracted to rotting organic matter or freshly plowed soil.
Caterpillars (including loopers, armyworms, cutworms, and alfalfa caterpillars)	Capture 2EC at 2.1 to 6.4 fl. oz. per acre per season.	Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.
	OR	
	Asana XL at 2.9 to 9.6 fl. oz. per acre.	For processing peas, treat 8-10 days before harvest. Do not exceed 0.1 lb. a.i. per acre per season. Do not feed treated vines to livestock. 3 day PHI, 21 day PHI for cowpeas.
	OR	
	Lannate 90SP at 0.5 to 1 lb. per acre, or LV at 1 to 3 pts. per acre.	Do not feed treated vines to livestock for 14 days. 1 day PHI, 14 day PHI for cowpeas.
	OR	
	SpinTor 2SC 4-6 fl. oz. per acre.	Do not exceed 24 fl. oz. per acre per season or 12 fl. oz. per acre per season for cowpeas. 3 day PHI.
	Mustang at 1.4 to 4.3 fl. oz. per acre.	Do not exceed 25.6 fl. oz per acre per season. 1 day PHI.

Threshold

1 caterpillar per 25 sweeps and more than 10 days until harvest

INSECTS CONTROLLED	TREATMENT	COMMENTS	
<p>Aphids</p> <div data-bbox="142 436 548 632" style="border: 1px solid black; border-radius: 15px; padding: 10px; margin: 10px 0;"> <p>Threshold</p> <p>25 aphids per sweep and more than 15 days until harvest</p> </div>	<p>Capture 2EC at 2.1 to 6.4 fl. oz. per acre.</p>	<p>Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.</p>	
	<p>OR</p>	<p>Dimethoate at 0.5 pt. per acre on peas or 0.75 to 1.5 pt. per acre on cowpeas.</p>	<p>Do not feed treated vines to livestock. Do not exceed one application per season on peas. 0 day PHI.</p>
	<p>OR</p>	<p>Lannate LV at 1 to 3 pts. per acre.</p>	<p>1 day PHI, 14 day PHI for cowpeas.</p>
	<p>OR</p>	<p>Thiodan 50 WP at 2 lbs. per acre.</p>	<p>Do not make more than 3 applications per season. 3 day PHI for cowpeas, 5 day PHI for peas.</p>
	<p>OR</p>	<p>Orthene/Address 75S at 0.6 to 1.3 lbs. per acre.</p>	<p>Apply when insects first appear. Repeat as necessary. Do not feed treated vines to livestock. Cowpeas only. 14 day PHI.</p>
	<p>Armyworms, corn earworm, European corn borer (on cowpeas)</p>	<p>Sevin 80S at 1.25 lbs., or XLR Plus at 1 qt. per acre.</p>	<p>21 day PHI.</p>
<p>OR</p>		<p>Lannate LV at 1 to 3 pts. per acre.</p>	<p>14 day PHI.</p>
<p>OR</p>		<p>Thiodan 50WP at 2 lbs. per acre.</p>	<p>Do not exceed 3 applications per season. Armyworm only. 3 day PHI.</p>
<p>OR</p>		<p>Orthene/Address 75S at 1 to 1.3 lbs. per acre.</p>	<p>Apply when insects first appear. Repeat as necessary. Do not feed treated vines to livestock. 14 day PHI.</p>
<p>OR</p>		<p>Capture 2EC at 2.1 to 6.4 fl. oz. per acre.</p>	<p>Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.</p>
<p>Mustang at 2.4 to 4.3 fl. oz. per acre.</p>		<p>Do not exceed 25.6 fl. oz. per acre per season. 1 day PHI.</p>	
<p>Bean leaf beetle (on cowpeas)</p>	<p>Sevin 80S at 1.25 lbs. or XLR Plus at 1 qt. per acre.</p>	<p>21 day PHI.</p>	
	<p>OR</p>	<p>Orthene/Address 75S at 0.6 to 1.3 lbs. per acre.</p>	<p>Apply when insects first appear. 14 day PHI.</p>
	<p>OR</p>	<p>Thiodan 50WP at 1 to 2 lbs. per acre.</p>	<p>Do not exceed 3 applications per season. 3 day PHI.</p>
	<p>OR</p>	<p>Capture 2EC at 2.1 to 6.4 fl. oz. per acre.</p>	<p>Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.</p>

INSECTS CONTROLLED	TREATMENT	COMMENTS
Bean leaf beetle (on cowpeas) (cont.)	Mustang at 2.4 to 4.3 fl. oz. per acre.	Do not exceed 25.6 fl. oz. per acre per season. 1 day PHI.
Cowpea curculio, Pea weevil (on cowpeas)	Sevin 80S at 1.8 lbs. or XLR Plus at 1 qt. per acre.	21 day PHI.
	OR	
	Lannate LV at 1 to 3 pts. per acre.	14 day PHI.
	OR	
	Thiodan 50WP at 1 to 2 lbs. per acre.	For cowpea curculio, make 3 applications at 5-day interval starting when pods are 0.5 inch long. 3 day PHI.
	OR	
	Capture 2EC at 2.1 to 6.4 fl. oz. per acre.	Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.
	Mustang 3.0 to 4.3 fl. oz. per acre.	Do not exceed 25.6 fl. oz. per acre per season. 1 day PHI.
Stink bugs (on cowpeas)	Sevin 80S at 1.25 lbs., or XLR Plus at 1 qt. per acre.	21 day PHI.
	OR	
	Lannate LV at 1 to 3 pts. per acre.	14 day PHI.
	OR	
	Thiodan 50WP at 1 to 2 lbs. per acre.	Do not exceed 3 applications per season. 3 day PHI.
	Capture 2EC at 2.1 to 6.4 fl. oz. per acre.	Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.
	Mustang 3.4 to 4.3 fl. oz. per acre.	Do not exceed 25.6 fl. oz. per acre per season. 1 day PHI.
Thrips (on cowpeas)	Lannate LV at 1 to 3 pts. per acre.	14 day PHI.
	OR	
	Orthene/Address 75S at 0.6 to 1.3 lbs. per acre.	Apply when insects first appear. Repeat at 7-10 day intervals as necessary. Do not feed treated vines to livestock. 14 day PHI.
	OR	
	Capture 2EC at 2.1 to 6.4 fl. oz. per acre.	Do not exceed 12.8 fl. oz. per acre per season. 3 day PHI.
	Mustang 3.4 to 4.3 fl. oz. per acre.	Do not exceed 25.6 fl. oz. per acre per season. 1 day PHI.