

Comparative Advantages / Disadvantages of Rotation Crops With Cotton (in relation to the following cotton crop)



	COTTON	SUMMER OILSEEDS	SUMMER COARSE GRAINS	SUMMER GRAIN LEGUMES	WINTER PULSES	GREEN MANURES	PERENNIAL LEGUME	WINTER OILSEEDS	WINTER CEREALS	BARE							
	Cotton	Sunflowers	Soybeans	Maize	Sorghum	Mung Beans	Pigeon Peas	Chickpeas	Faba Beans	Dolichos Lablab	Vetch	Lucerne	Canola	Safflower	Wheat/Barley/Triticale/Oats	Long Fallow	
General Overview	<ul style="list-style-type: none"> Slow breakdown, very slow cycle of organic carbon. Highly VAM dependent. Cotton herbicides in failed cotton drastically reduce crop options. 	<ul style="list-style-type: none"> Good cash crop. Poor stubble cover. Specialised harvest equipment. Can aggravate cotton insect pests. Can aggravate weed management. 	<ul style="list-style-type: none"> Stubble breaks down quickly. Good gross margins. Highly VAM dependent. Can aggravate weed management. 	<ul style="list-style-type: none"> Good stubble cover. Need corn front to harvest. Highly VAM dependent. Potential plant — back problem with atrazine. 	<ul style="list-style-type: none"> Long planting window. Has a role in IPM. Stubble can be a problem. Potential plant — back problems with atrazine. 	<ul style="list-style-type: none"> Stubble breaks down easily. Good short-term cash crop. Short season 90 days requires intensive management. Can aggravate cotton insect pests. Highly sensitive to waterlogging. 	<ul style="list-style-type: none"> Has role in cotton IPM as trap crop. Stubble breaks down quickly. Difficult to establish in Southern NSW. Can aggravate cotton insect pests. 	<ul style="list-style-type: none"> Stubble breaks down quickly. Good cash crop. Good N fixer. Can aggravate sowthistle problems. 	<ul style="list-style-type: none"> Stubble breaks down quickly. Good cash crop. Stubble breaks down quickly. Foliair disease management critical. 	<ul style="list-style-type: none"> Stubble breaks down quickly. Good cash crop. Stubble breaks down quickly. Foliair disease management critical. 	<ul style="list-style-type: none"> Stubble breaks down easily. Does not aggravate cotton insect pests. Good N fixation. Destroy crop before flower/seed set. 	<ul style="list-style-type: none"> Has a role in IPM. Reduces N fertilizer for cotton. Harbours beneficial insects. Field out of production for many months. Long-term option. 	<ul style="list-style-type: none"> Efficient N structure. Improves soil structure. Harbours beneficial insects. Field out of production for many months. Long-term option. 	<ul style="list-style-type: none"> Rarely if ever used as rotation crop with cotton. Good cash crop. Improves soil structure. Allelopathic effect on cotton immediately following canola. 	<ul style="list-style-type: none"> Low input crop. Improves soil structure. Can aggravate insect pests, particularly mirids/mites. Excellent cotton disease break - exception Fusarium. Can aggravate sowthistle problems. 	<ul style="list-style-type: none"> Easy to grow cash crop. Sowing time more aligned with cotton harvest. Can reduce VAM levels. Potential soil erosion. 	
Planting Overview	<ul style="list-style-type: none"> Narrow spring planting window for Bolgard II® cotton. Following legumes increase sowing rates by 10% to ensure adequate plant populations. 	<ul style="list-style-type: none"> Spring and summer planting windows. Late plantings are preferred for polyunsaturated hybrids. When selecting fields consider bird risks. 	<ul style="list-style-type: none"> Early summer planting window for best results. Seed is short lived. N-fixing legume. Germination and vigor are lost after only a few months in storage. 	<ul style="list-style-type: none"> Spring and summer planting windows. In NSW under irrigation, medium maturity hybrids usually perform best. 	<ul style="list-style-type: none"> Spring and summer planting windows. Days to flowering depend on hybrid maturity but will be less with late plantings in warmer temperatures. 	<ul style="list-style-type: none"> Plant in late autumn – early winter, according to local recommendations. Flowering occurs 60–80 days after emergence. Early planting may lead to excessive vegetative growth and lodging. Late plantings reduces harvest height. Well suited to double cropping after wheat. 	<ul style="list-style-type: none"> Short autumn planting windows. Check local recommendations. Late planting reduces the duration of flowering (yield potential) and the harvest height. 	<ul style="list-style-type: none"> Spring planting window maximises vegetative growth. Use a longer season variety to maximise the days to flowering. Well suited to double cropping after wheat. 	<ul style="list-style-type: none"> Plant from mid-February to late April. With adequate soil moisture earlier plantings produce more biomass. Best results after wheat, but with timely operations can be grown between cotton crops. Low temperatures restrict winter growth. Avoid deep planting as seedlings are weak. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	<ul style="list-style-type: none"> Autumn and spring planting opportunities. Best crop growth will occur between late spring and early autumn. Varieties can be highly winter active through to winter dormant. Strip planting maximises attractiveness to insects. 	
Planting Temperature (planting depth at 8–9cm)	<ul style="list-style-type: none"> 14°C and rising for 3 consecutive days. 	<ul style="list-style-type: none"> 10–12°C and rising when heavy frosts have past. 	<ul style="list-style-type: none"> Does not influence the start of the planting window. 	<ul style="list-style-type: none"> 12°C and rising. Allow for a 3–4°C drop if watering up. 	<ul style="list-style-type: none"> 16–18°C for 3–4 days and the risk of frost has past. 	<ul style="list-style-type: none"> Emergence occurs >10.5°C, but 28–30°C is ideal for crop growth. 	<ul style="list-style-type: none"> 18°C and rising. Plant refuge crops within 2 weeks of planting Bolgard II® cotton. 	<ul style="list-style-type: none"> Does not influence the start of the planting window. 	<ul style="list-style-type: none"> Does not influence the start of the planting window. 	<ul style="list-style-type: none"> 18°C on 3 consecutive days and rising. 	<ul style="list-style-type: none"> The optimum range is 23–15°C. 	<ul style="list-style-type: none"> Autumn, plant for crop establishment before frosts. Spring plant when frost risk passed into good soil moisture. 	<ul style="list-style-type: none"> Does not influence the start of the planting window, but late planting into cold soils can reduce emergence. 	<ul style="list-style-type: none"> Does not influence the start of the planting window. Frost tolerant until stem elongation commences. 	<ul style="list-style-type: none"> 20°C and failing for early plant (oats, grazing varieties). Does not influence the start of the main season planting window. 	<ul style="list-style-type: none"> Not applicable. 	
Stubble Management	<ul style="list-style-type: none"> Slow breakdown, very slow cycle of organic carbon. Implications for disease management – prevent regrowth. Inefficient breakdown in dry winters. Cover can be lost in heavy storms. 	<ul style="list-style-type: none"> Poor ground cover & residual organic matter. Stalks require flattening or busting to aid break down – beware of compaction risks when undertaking these operations. When left standing or as stubs damage to equipment such as tyres can occur. 	<ul style="list-style-type: none"> Stems may be ropery causing problems at harvest and with land preparation for cotton. Quick break down means stubble is not suitable for long fallow situations. 	<ul style="list-style-type: none"> Good ground cover for short fallows. Breaks down more easily than sorghum. High in nutrients: 11 kg N, 14 kg P, 166 kg K/tonne. 	<ul style="list-style-type: none"> Moderate ground cover for long fallows. Breaks down more quickly than cereals but difficult to incorporate for quicker breakdown. Late incorporation in conjunction with a dry winter is known to be allelopathic to emerging cotton. 	<ul style="list-style-type: none"> Poor stubble cover. Quick break down means stubble is not suitable for long fallow situations. 	<ul style="list-style-type: none"> Poor stubble cover. Gappy plant stands can lead to increased risk for long fallow situations. 	<ul style="list-style-type: none"> Poor stubble cover. Quick break down means stubble is not suitable for long fallow situations. 	<ul style="list-style-type: none"> Poor stubble cover. Quick break down means stubble is not suitable for long fallow situations. 	<ul style="list-style-type: none"> Poor stubble cover. Quick break down means stubble is not suitable for long fallow situations. 	<ul style="list-style-type: none"> May exacerbate cotton diseases if double cropped. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases.
Standing Stubble	<ul style="list-style-type: none"> Need to cut below cotyledon node to prevent regrowth. 	<ul style="list-style-type: none"> Exacerbates cotton diseases. 	<ul style="list-style-type: none"> Exacerbates cotton seedling diseases. 	<ul style="list-style-type: none"> Narrow rows allow inter-planting of cotton. 	<ul style="list-style-type: none"> Twin rows or narrow rows allow inter-planting of cotton. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases. 	<ul style="list-style-type: none"> May exacerbate cotton diseases.
Soil Structure	<ul style="list-style-type: none"> Deep rooted. Will dry and crack soil. 	<ul style="list-style-type: none"> Very deep rooted, can make use of nutrients at depth. Has a 'conditioning' effect. Can build compacted layers. 	<ul style="list-style-type: none"> Improves soil structure. More friable topsoil. 	<ul style="list-style-type: none"> Deep rooted. More friable topsoil. 	<ul style="list-style-type: none"> Deep rooted. Soil can be hard to till. 	<ul style="list-style-type: none"> Shallow rooted. Do not penetrate compacted layers. 	<ul style="list-style-type: none"> Deep rooted. Has a 'conditioning' effect. 	<ul style="list-style-type: none"> Shallow rooted. Leaves behind moisture lower in the profile for use by the following crop. 	<ul style="list-style-type: none"> Moderate rooting depth. Has a 'conditioning' effect. 	<ul style="list-style-type: none"> Moderate rooting depth. Has a 'conditioning' effect. 	<ul style="list-style-type: none"> Moderate rooting depth. Has a 'conditioning' effect. 	<ul style="list-style-type: none"> Deep rooted. Can increase soil organic matter. Perform better than peas on hard setting soils. 	<ul style="list-style-type: none"> Soil structure improved to depth. 	<ul style="list-style-type: none"> Will dry soil profile. Improves soil structure. More friable top soil. 	<ul style="list-style-type: none"> Very deep and aggressive tap root. May penetrate hard layers. Causes deep cracking. Surface till blocky and inferior to wheat. 	<ul style="list-style-type: none"> Higher root density than grain legumes. Will dry soil profile causing deep cracking. Improves soil structure. Beneficial effects for 3–5 years. 	<ul style="list-style-type: none"> Potential for erosion. No improvement in soil structure (no wetting and drying, no plant root activity). Reduces soil O.M.
Reactions to salinity (ECe) and/or sodicity	<ul style="list-style-type: none"> Yields decline when soil salinity is 6–10 dS/m or water salinity is >2.5 dS/m. Relatively high tolerance. Seedling sensitivity 2–3 dS/m. 	<ul style="list-style-type: none"> Yields decline when soil salinity exceeds 2.0 dS/m or water salinity is >2.5 dS/m. More tolerant than sorghum. 	<ul style="list-style-type: none"> Yields decline when soil salinity exceeds 2.0 dS/m or water salinity is >1.1 dS/m. Relatively low tolerance. 	<ul style="list-style-type: none"> Yields decline when soil salinity is >2.5 dS/m or water salinity is >1.1 dS/m. Less tolerant than wheat. 	<ul style="list-style-type: none"> Rapid yield decline when soil salinity exceeds 4–5 dS/m. Less tolerant than wheat. 	<ul style="list-style-type: none"> Yields decline when soil ECe is >2dS/m. Sensitive to sodicity (waterlogging). Sensitive to high tolerance. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 600 mg/kg or soil sodium is >500 mg/kg or soil ESP at the surface is >1 or in the subsoil is >5. Yield declines when soil chloride is > 600 mg/kg or soil sodium is >500 mg/kg or soil ESP at the surface is >5 or in the subsoil is >10 or soil ECe >1.6 dS/m. 	<ul style="list-style-type: none"> Sensitive to sodicity (waterlogging). Moderately sensitive to salinity. 	<ul style="list-style-type: none"> Yield declines when soil ECe >3.0 (waterlogging). Yield declines when soil ESP at the surface is >3 or in the subsoil is >6 or when soil ECe >2 dS/m. 	<ul style="list-style-type: none"> Yield declines when soil ESP at the surface is >3 or in the subsoil is >6 or when soil ECe >2 dS/m. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6. 	<ul style="list-style-type: none"> Yield declines when soil chloride is > 1200 mg/kg or soil ESP at the surface is >3 or in the subsoil is >6.
Insects	<ul style="list-style-type: none"> IRMS assists chemical selection and stewardship. Aggravate <i>Helicoverpa</i> spp. Host for insect control. Control volunteers to prevent carryover of pests from one season to the next. Pupae bust Bolgard II® as required in the RMP. 	<ul style="list-style-type: none"> Supports strong populations of general insect predators. Host for <i>Helicoverpa</i> spp., mirids, whiteflies. Extremely susceptible to attack from whiteflies. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp., mirids, whiteflies. Extremely susceptible to attack from whiteflies. 	<ul style="list-style-type: none"> Bolgard II® refuge crop option. Supports strong populations of generalist insect predators. Host for <i>H. armigera</i> and spider mites. Early crops can increase risk of cutworms. Late crops can increase risk of wireworms next spring. 	<ul style="list-style-type: none"> Bolgard II® refuge crop option. Supports strong populations of generalist insect predators. Host for <i>H. armigera</i>. Late crops can increase risk of wireworms next spring. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for mirids, <i>Helicoverpa</i> spp. and green vegetable bug and whistles. Insect damage is a key contributor to grain quality downgrades. 	<ul style="list-style-type: none"> Bolgard II® refuge crop option. Bolgard II® trap crop in Central Queensland. Highly attractive to <i>Helicoverpa</i> spp. during flowering. Host for mirids. 	<ul style="list-style-type: none"> Bolgard II® trap crop in the Burdekin. Highly attractive to <i>Helicoverpa</i> spp. during flowering. Generally unattractive to beneficial spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators through winter and early spring. Host for cowpea aphid and <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp. 	<ul style="list-style-type: none"> Supports strong populations of generalist insect predators. Host for <i>Helicoverpa</i> spp.
Weeds/Herbicides	<ul style="list-style-type: none"> Roundup Ready Flex® and Liberty Link® cottons are alternative options for weed control. Specific management tactics may be required for cotton volunteers. Residual cotton herbicides in failed cotton drastically reduce crop options. 	<ul style="list-style-type: none"> Select fields with low incidence of summer broadleaf weeds. Residual herbicide available at planting but limited options in crop. Consider how to control volunteers in fallow and subsequent cotton crops. Upland varieties are resistant. Incorporate residues from Pima varieties soon after harvest to prevent build up. 	<ul style="list-style-type: none"> Once established, the crop competes well with weeds. Consider how to control volunteers in fallow and subsequent cotton crops. Upland varieties are resistant. 	<ul style="list-style-type: none"> Combination of herbicides and crop competition tends to reduce weed burdens. Opportunity to use alternative Modes of Action (not Group M or Group A) for grass weed control. Limit atrazine rates to avoid plant back problems. 	<ul style="list-style-type: none"> Combination of herbicides and crop competition tends to reduce weed burdens. Opportunity to use alternative Modes of Action (not Group M or Group A) for grass weed control. Mungbean seed lots containing weed seeds can be difficult to sell, incurring substantial discounts. 	<ul style="list-style-type: none"> Poor competitor with weeds. Select fields with low broadleaf weed burdens as herbicide options are limited. Low tolerance of Group B, Group C and Group I residues. Mungbean seed lots containing weed seeds can be difficult to sell, incurring substantial discounts. 	<ul style="list-style-type: none"> A range of herbicides can be used under Off Label Permits. www.apvma.gov.au. Use inter-row cultivation to assist weed control. Slow seedling growth means poor early competitor with weeds. 	<ul style="list-style-type: none"> Highly competitive once established. Higher WUE than Lucerne. Select fields with low weed burdens as herbicide options are very limited – Trifluralin and Spinosafer® (APVMA Permit no. 9885). Low tolerance of Group B, Group C and Group I residues. 	<ul style="list-style-type: none"> Vigorous seedling growth provides excellent weed competition. Limited herbicide options for broadleaf weed control. Balance® is only for use post plant, pre crop emergence. Balance® may reduce N fixation in some situations. Low tolerance of Group B, Group C and Group I residues. 	<ul style="list-style-type: none"> When planted late, weeds are controlled with manuring. Timeliness of manuring prevents vetch volunteers becoming problematic. In early plant situations, select fields with low broadleaf weed burdens as herbicide options are limited. 	<ul style="list-style-type: none"> Once established is very competitive. Aids nutgrass control through dry soil profile. Herbicides are available but difficult for broadleaf weeds can be expensive. Difficult to control lucerne rats/mire/rotters in cotton. 	<ul style="list-style-type: none"> Vigorous seedling growth provides excellent weed competition. Conventional canola has limited options for broad leaf herbicides available. Herbicide tolerant varieties are available but beware of long plant backs to cotton. 	<ul style="list-style-type: none"> Narrow row spacings assist with weed suppression (and maximize yield). Late broad leaf weeds can be a problem, particularly sowthistle. Limited herbicide registrations. 	<ul style="list-style-type: none"> Wide range of herbicide options for broadleaf and grass weed control. Consider carefully when using residual herbicides. Herbicide tolerant varieties are available but beware of long plant backs to cotton. 	<ul style="list-style-type: none"> Planned long fallows may allow use of some residual herbicides. Uncontrolled wheat traffic may cause compaction. Must control weeds particularly cotton regrowth and volunteers. 	<ul style="list-style-type: none"> Planned long fallows may allow use of some residual herbicides. Uncontrolled wheat traffic may cause compaction. Must control weeds particularly cotton regrowth and volunteers. 	
Bacterial Blight	<ul style="list-style-type: none"> Incorporate residues from Pima varieties soon after harvest to prevent build up. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease.
Verticillium Wilt	<ul style="list-style-type: none"> Risk is related to variety V rank. Early incorporation of residues reduces carryover. Fields with long history of cotton are at higher risk. Survive in crop residues – incorporate early to minimise risk. 	<ul style="list-style-type: none"> May decrease with resistant sunflower varieties. Most hybrids resistant. 	<ul style="list-style-type: none"> May increase – listed as a host in USA and in Queensland. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> May increase – listed as host in QLD. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease in weed free fallows (many weeds are hosts).
Seedling Disease	<ul style="list-style-type: none"> Survive in crop residues – incorporate early to minimise risk. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Survive in crop residues – incorporate early to minimise risk. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk. 	<ul style="list-style-type: none"> Survives in crop residues. Incorporate early to minimise risk.
Phytophthora Boll Rot	<ul style="list-style-type: none"> Early incorporation of crop residues may reduce carryover. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> May increase – listed as a host in Old. WA. 	<ul style="list-style-type: none"> Decrease – not listed as host. 	<ul style="list-style-type: none"> Decrease if cotton residue incorporated.
Alternaria Leaf Spot	<ul style="list-style-type: none"> Early incorporation of crop residues may reduce carryover. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease if cotton residues incorporated.
Black Root Rot	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Non host. Requires repeated use of non hosts in the rotation to reduce incidence. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Non host. Requires repeated use of non hosts in the rotation to reduce incidence. 	<ul style="list-style-type: none"> Non host. Requires repeated use of non hosts in the rotation to reduce incidence. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Decrease with repeated use – Not a host. 	<ul style="list-style-type: none"> Decrease with repeated use – Not a host. 	<ul style="list-style-type: none"> Decrease in weed – free fallows (some weeds are hosts).
Fusarium Wilt	<ul style="list-style-type: none"> Increase – especially growing low F rank varieties. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> Increase in crop residues – a saprophyte. 	<ul style="list-style-type: none"> May increase as saprophyte on crop residues. 	<ul style="list-style-type: none"> May increase as saprophyte on crop residues. 	<ul style="list-style-type: none"> May increase as saprophyte on crop residues.
Sclerotinia	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Decrease. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Increase. 	<ul style="list-style-type: none"> Decrease.
VAM	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Very highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Highly VAM dependent. 	<ul style="list-style-type: none"> Very highly VAM dependent. 	<ul style="list-style-type: none"> Very highly VAM dependent. 	<ul style="list-style-type: none"> 					