

	Sorghum Sudangrass	Forage Pearl Millet	Brown Mustard	Buckwheat	Oilseed Radish	Annual Ryegrass
Seeding Rate	25-30 lbs/ac	25-30 lb/ac	10-12 lb/ac	30-55 lbs/ac	10-15 lbs/ac	20-30 lbs/ac
Earliest Planting Date	mid-June	mid-June	mid to late May	early to mid-June	early to mid May	late April
Latest Planting Date	mid-August	mid-August	early September	early September	early September	early September
Annual/Perennial	Annual	Annual	Annual	Short-Season Annual	Annual	Annual
Winter Survival	Never	Never	Never	Never	Never	Seldom
Can it be mowed?	Yes (> 6 inches) Increases root mass	Yes (>6 inches) Increases root mass	Yes	No	Yes	Yes (>3 inches)
Termination	Freeze, Tillage, Herbicide, Mowing close to ground	Freeze, Tillage, Herbicide, Mowing close to ground	Freeze, Tillage, Herbicide, Mowing close to ground	Freeze, Tillage, Herbicide, Mowing	Freeze, Tillage, Herbicide	Tillage, Herbicide
Soil OM Builder	Very Good	Very Good	Good	Good	Good	Excellent
Compaction Fighter	Very Good	Good	Good	Fair	Very Good	Fair
Weed Suppression	Very Good	Very Good	Excellent	Excellent	Excellent	Fair
Quick Growth	Very Good	Very Good	Excellent	Excellent	Excellent	Fair
Effect on RL Nematodes	Inconclusive	Reduces Numbers	Very Good if incorpo- rated. Host if not	Moderate Host	Moderate Host	Preferred Host
Effect on Verticillium	Trap Crop	Non-Host	Very Good (biofumigant)	Inconclusive	Inconclusive	Non-Host
Wireworm Fighter	No	No	Yes (biofumigant)	Yes	Inconclusive	No
Effect on Common Scab	Unknown	Unknown	Possible Suppression (Green Manure)	Possible Suppression (Green Manure)	Possible Suppression (Green Manure)	Unknown
Forage Harvest	Good (before frost)	Good	Poor	Poor	Poor	Very Good
Preferred Soil pH	5.5 - 7.0	5.5 - 7.5	5.5 - 8.5	5.0 - 7.0	6.0 - 7.5	5.5 - 7.0
Drought Tolerance	Excellent	Excellent	Good	Good	Good	Good
Additional Effects:	- Non-host for cyst nematodes - Best to mow before plants be- come woody (3-4 ft) to avoid N tie-up	- Best to mow before plants become woody (3-4 ft) to avoid N tie-up	- risk for white mold - incorporate in pres- ence of adequate soil moisture - do not go to seed	- P scavenger - Pollinator crop - Wireworm control when actively growing - do not go to seed - risk for white mold	- risk for white mold - N scavenger - establishes in colder soil than mustard	- can be used as underseed with grain crops - perennial ryegrass more winter hardy but must be terminated

	Alfalfa	Red Clover	Hairy Vetch	- 50% Oats/50% Peas	Chickling Vetch	Winter Rye
Seeding Rate	10-15 lb/ac	8-12 lb/ac	15-25 lbs/ac	18-45 lb/ac (Peas) 25-50 lb/ac (Oats)	35-45 lbs/ac	60-100 lbs/ac +10-20% for broadcast
Earliest Planting Date	early May	early May	early May	early May	early May	early May
Latest Planting Date	late August	late August	early September	late August	late August	early/mid October
Annual/Perennial	Perennial	Perennial	Annual	Annual	Annual	Annual
Winter Survival	Yes	Yes	Almost always	Never	Never	Always
Can it be mowed?	Yes	Yes	Yes	Yes (early stages)	No	Yes (early stages)
Termination	Tillage, Herbicide	Tillage, Herbicide	Tillage, Herbicide, Close mowing	Freeze, Tillage, Herbicide	Freeze, Tillage, Mow, Herbicide	Herbicide (preferred), Tillage
Soil OM Builder	Excellent	Excellent	Very Good	Good	Good	Excellent
Compaction Fighter	Very Good	Very Good	Good	Fair	Fair	Good
Weed Suppression	Fair	Good	Fair	Good	Fair	Excellent
Quick Growth	Fair	Fair	Fair	Very Good	Good	Very Good
Effect on RL Nematodes	Host crop (less than clover)	Preferred Host	Host crop	Host Crop	Host Crop	Host Crop
Effect on Verticillium	Host crop	Preferred Host	Host crop	Peas are Host Crop	Host Crop	Non-Host
Wireworm Fighter	No	No	No	No	No	No
Effect on Common Scab	Non-Host	Can worsen	Unknown	Unknown	Unknown	Unknown
Forage Harvest	Excellent	Very Good	Poor	Good	Poor	Very Good
Preferred Soil pH	6.0-8.0	5.5-8.0	6.0-7.0	6.0-7.0	6.0-7.0	5.0-7.0
Drought Tolerance	Excellent	Very Good	Very Good	Good	Good	Very Good
Additional Effects:	- N fixer - mixes well with grasses - can underseed - better for multiple year establishment	- N fixer - mixes well with grasses - can underseed - can be frost seeded	- N fixer - mixes well with grasses - plant early for winter hardiness	- Peas are N fixer - has shown disease suppression as green manure - tolerates cold temps and poor fertility	- N fixer - mowing can be difficult (tangled vines) - usually used in mix with other species	- best late fall cover crop - tolerant of cold and low fertility - erosion fighter - triazine resistance

Source: <http://decision-tool.incovercrops.ca/> and additional academic sources for disease/pest control effects
Updated December 2020

Compiled by Ryan Barrett, AIM, PEI Potato Board