

## Shenandoah Valley Cover Crop Mix Species - Management and Values

										Planting rate	
	N scavenger	N producer (lbs produced)	biofumigant	Soil builder	Weed control	Forage value	Compaction mitigation	Erosion control	Insectary	Alone	In mix
rye	•			•	•	•		•		2 bushels	1/4 bu
triticale	•			•	•	•		•		2 bushels	1/4 bu
hairy vetch		100 +		•					•		15 lbs
crimson clover		100 +		•	•	•		•	•		15 lbs
peas		100 +				•		•	•		50 lbs
radish	•		•	•	•		•	•			6 lbs
phacelia	•			•	•		•	•	•		7 lbs

Winter cover crops supply a variety of functions, including the following:

- Nitrogen supplier – At the cost of planting seed in the fall, you can supply a significant amount of the nitrogen needed by the

  - subsequent crop.
- Nitrogen scavenger – The cover crop will uptake any nitrogen available that would otherwise be lost to leaching. The nitrogen will

  - return to the soil and become available to the next crop.
- Soil builder – Soil building is the foundation of no-till crop production. Some species will produce abundant biomass or encourage

  - good soil structure.
- Weed control – Some species will do a much better job at choking out weeds in the fall, and again in early spring.
- Compaction mitigation – Many farms deal with compaction issues. Some species will produce deep roots, breaking through

  - compaction zones.
- Erosion control – Planting species that establish quickly will minimize soil erosion.
- Forage – Abundant biomass and efficient nutrient accumulation make species ideal for grazing or forage production.
- Biofumigant – Brassicas in particular will release toxins to insects, bacteria, fungi, and weeds.
- Insectary – Species that flower early and for long periods of time will attract beneficial insects.

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Species and variety	price/bag	price/lb	Recommended Seeding Rates				Mix Examples					
			drilled		broadcast		Buff's mix		Yancey mix		Forage mix	
			alone	mixed	alone	mixed	lb/acre	\$/acre	lb/acre	\$/acre	lb/acre	\$/acre
rye VNS	14.50	0.29	112	28	168	50	10	2.90	10	2.90	112	32.48
Tillage radish	165.00	3.30	10	8	20	10	6	19.80	6	19.80	6	19.80
Groundhog radish	62.50	1.25										
Austrian winter pea	41.00	0.82	80	50	100	90						
vetch-Purple Bounty	140.00	2.80	25	13	25	13	15	42.00			20	56.00
hairy vetch VNS	182.86	2.29							15	34.29		
crimson clover	62.50	1.25	20	15	30	22						
phacelia	132.00	6.00							6	36.00		
TOTAL COST								61.80		90.09		75.80