CRESS LAND (BARBAREA VULGARIS) - ‘Dead End Trap Crop’

Upland Cress, also called American Cress & Land Cress is that rare find - a vegetable that actually prefers shade. This makes it ideal for growing underneath a tall crop, such as Jerusalem Artichokes, runner (pole) beans or sweetcorn, even sunflowers & brassica’s. It tastes a lot like watercress and is used mainly as a substitute for it, but can also be used sparingly in salads, as a spinach substitute, or turned into an excellent soup.

COMPANION PLANT TO BRASSICA’S.

Attracts: Diamondback Moth, Large Cabbage Moth & Cabbage White Butterfly.

The Diamondback Moth and the large Cabbage Moth’s caterpillars are poisoned by this plant.

The Cabbage White Butterfly is attracted to this over the Brassica family and lays its eggs on the plant but this plant will not kill the caterpillars. Horticultural suggestion is to use Dipel (BFA Organic) ensure the veggies are not sprayed. Personally I pick them off and give them to the birds.

GROWING TIPS

Germinates between 10-20deg

Prefer sunny to shade position.

Sow 5mm deep, seedlings emerge 8 -14 days

Keep the soil very moist with regular watering, preferably before mid-afternoon. Continue to protect from slugs. Remove flower stalks as they appear.

USE

Young leaves - raw, cooked or used as a seasoning. A hot, spicy watercress flavour, they are delicious in salads. Leaves can be obtained throughout the year if autumn-sown plants are given a light protection in winter. An edible oil is obtained from the seed. The seed can be sprouted and added to salads, etc.

HERB ATTRIBUTES

Harvest: Harvest regularly.
Position: Sun to Part Sun.
Height: 0.3cm.
Width: Spreading.
Lifespan: Biennial.

Land Cress (Barbarea vulgaris and Barbarea verna) release chemicals which attract the Diamondback Moth and the Large Cabbage Moth, both are small brown moths which are
common pests in the veggie garden. These moths, preferring Land Cress to Brassica’s, lay their eggs in the Land Cress, with the emerging caterpillars feed on the Land Cress, and are poisoned by the saponins in the leaves and die. You will hear Land Cress referred to as a ‘Dead End Trap Crop’ – and this is why. Also worth noting is Land Cress – *Barbera verna* – is a nice spicy addition to salads but it has been noted it is not quite as effective as the *Barbarea vulgaris*.

Do NOT confuse Diamond Moth and Large Cabbage Moth with the Cabbage White Butterfly. Confusion of these names has led to an unsubstantiated belief that Land Cress is a Dead End Trap Crop for the Cabbage White Butterfly (*Pieris rapae*). Landcress attracts the butterfly, but does not kill its caterpillars. You can use it as a sacrificial plant, to trap the caterpillars, then pull the plant out and bin plant and pests OR hand pick off the pests and feed them to the chooks or other birds. Alternatively, once you have a nice infestation building up on your land cress you can give it a spray with Dipel (BFA Organic), hopefully breaking the pest infestation cycle without having to spray the vegies.

**Lengthy Version:**
A plant that can attract and kill pest caterpillars almost sounds too good to be true. Well for an unfortunate number of caterpillar species it is a reality and the plant is commonly known as Land Cress (*Barbarea vulgaris*)

Land Cress (*Barbarea vulgaris*) can be used as a dead end trap crop for two common brassica pest caterpillars, the Diamondback Moth (*Plutella xylostella*) and Large Cabbage Moth (*Crocidolomia pavonana*).

The way it works is quite amazing, the plant releases chemical substances called glucosinolates which attracts the pests to lay their eggs on the plant. When the eggs hatch, the young caterpillars eat the leaves which contain soap-like compounds called saponins, and then die.

‘Land Cress’ is a common name used to describe both *Barbarea vulgaris* and *Barbarea verna*. Even though *Barbarea vulgaris* does contain a higher levels of the toxin both varieties, both *Barbarea vulgaris* and *Barbarea verna* have been proven to work as dead end trap crops.

If you’re after a more scientific reassurance, the research article published in PubMed in Feb 2014 [2] with the lengthy title of “Using plant chemistry and insect preference to study the potential of Barbarea (Brassicaceae) as a dead-end trap crop for diamondback moth (Lepidoptera: Plutellidae)” states:

“Barbarea plants were also assessed based on the criteria of high content of glucosinolates, which stimulate adult oviposition and larval feeding in *P. xylostella*, and high content of saponins, which are detrimental to survival of *P. xylostella* larvae. All Barbarea plants tested were preferred over cabbage by ovipositing *P. xylostella*. Put simply, all species of Barbarea attract the pests to lay their eggs on them.
“Despite containing a lower content of saponins than other Barbarea plants tested, Barbarea verna did not allow survival of *P. xylostella* larvae. Our studies show that, except for *B. rupicola* and P-type *B. vulgaris* var. *arcuata*, which allowed survival of *P. xylostella* larvae, all Barbarea plants tested have potential as dead-end trap crops for *P. xylostella*.”

The article concludes that although *Barbarea verna* has lower levels of the saponins that kill the caterpillars, it has enough to kill them with a 100% success rate, and all Barbarea species except for two (which are not the ones in question) work as dead end trap crops.

**References:**
