

# What are those white rows?



Photo by Rhonda Simmons for The Pioneer

Breathable paper provides protection for one of Central Oregon's agricultural commodities, carrot seed. In Jefferson County, the paper is widely used.

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One of the most commonly asked questions we receive at the central Oregon Agricultural Research Center is "what are those white rows out in the field during the winter?"

Believe it or not, it's a breathable paper that provides protection for one of central Oregon's agricultural commodities, carrot seed.

Hybrid carrot seed production is the single most highly valued crop in central Oregon, having a gross value in 2011 of \$19 million. Carrot seed acreage has consistently been from 3,000-4,000 acres in recent years. Approximately 75 percent of carrot seed acres are planted from seed in August the year before harvest (seed-to-seed); the other 25 percent are spring transplanted from roots (root-to-seed).

Frost-heaving is a major risk factor for seed-to-seed carrot production in the region. Frost-heaving tends to occur from January through March when the soil is moist and frequently freezes and thaws in response to daily temperature fluctuation. The freezing and thawing soil can result in seedling carrots being pushed up out of the soil, or heaved, which results in plant death.

To avoid catastrophic crop loss, growers have attempted various methods to insulate seedling carrots and prevent them from heaving. Previously, mint hay, wood mulch, wheat straw, and hydro seeding have been tried but applications have been difficult. The most widely used method of protecting carrots is a material called Agribon paper. Agribon is an ultra-light weight, non-woven fabric that allows sun light, air and water to pass through to the plant.

Benefits include capturing warmth which results in healthier plant growth, protecting plants from damaging winds, and providing the most effective, least toxic, form of insect control. Agribon row cover can even be used in your garden to jump start spring plants or prolong the growing season.

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