

Oilseed Radish Research in Ohio

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Oilseed Radish







The Crescent-News

50 cents

Friday, February 5, 2010

Defiance, Ohio

UT coaches, players
are guest speakers at
ecumenical breakfast

Religion | A8



WAUSEON
EARNs SHARE
OF NWOAL TITLE

Sports | B1



WRESTLING SPOTLIGHT

First-year Defiance coach
talks about this
year and beyond

Railroad vital to NW Ohio economy

Grant would
finance repair to
run-down tracks

By BETHANY RAYLE
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It can be annoying to get stuck at a railroad crossing, especially if you're in a hurry, but those trains play a vital role in supporting area industry.

In 2007, more than 311 million tons and nearly seven million units of freight were transported on Ohio railroads with coal, iron, steel and grain topping the list of freight originating from the state.

"They're absolutely critical for northwest Ohio's economy," said Jerry Hayes, executive director of economic development of Defiance County. "We have a group of businesses in fairly heavy industry that rely on rail in this area."

"It is a highly important service to the elevators and farmers in our area," said Hayes. He added that locally the Jewell Grain Co. and Gerald Grain Center are two businesses that rely heavily on rail to ship grain.

According to Tony Langham,

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Jared Orzolek/C-N Photo

The odor given off by this field of oilseed radishes located along Ohio 66, north of Defiance, has caused several citizens to call emergency officials to report a suspected gas leak.

The field is located near two natural gas pipeline facilities near Banner School Road. The Tiffin Township Fire Department has responded to five calls about the odor in the last 45 days.



Photo courtesy of Bruce Clavenger/OSU Extension office

Here is a close-up view of oilseed radishes as harvested by the Ohio State University Extension office of Defiance County. The extension office is working with local farmers to research cover crops like the radish to naturally improve soil quality. One side effect of the crop is an odor that can be mistaken for the additive mixed with retail natural gas to signal leaks.

PEE YEW!

Foul odor north of Defiance
caused by oilseed radishes

By JARED ORZOLEK
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A pungent odor in the vicinity of a pair of natural gas facilities located north of Defiance isn't caused by a gas leak.

The odor, which has led the Tiffin Township Volunteer Fire Department to respond to five odor investigations in the last 45 days, is caused by a cover crop planted along Ohio 66, north of Banner School Road.

The crop of oilseed radishes is located near the

large TransCanada natural gas compression station and the smaller Panhandle Eastern exchange station.

Citizens have apparently smelled the decaying radish plants — planted to help retain nutrients in the soil — and have called authorities to report a suspected gas leak. The latest call came into the Defiance County Sheriff's Office 911 center on Tuesday.

"It's manpower. Each time we go out there it's about an hour," said Tiffin Township Fire Chief Jamie

• ODOR, Page A10

Buehrer: 'If you're a
political junkie, this



OVI enforcement
Patrol out in



Austrian Peas & Oil Seed Radishes in different
boxes
- planted @ the same time.

Oilseed Radish & Winter Pea Shelby County



NW Ag Research Farm



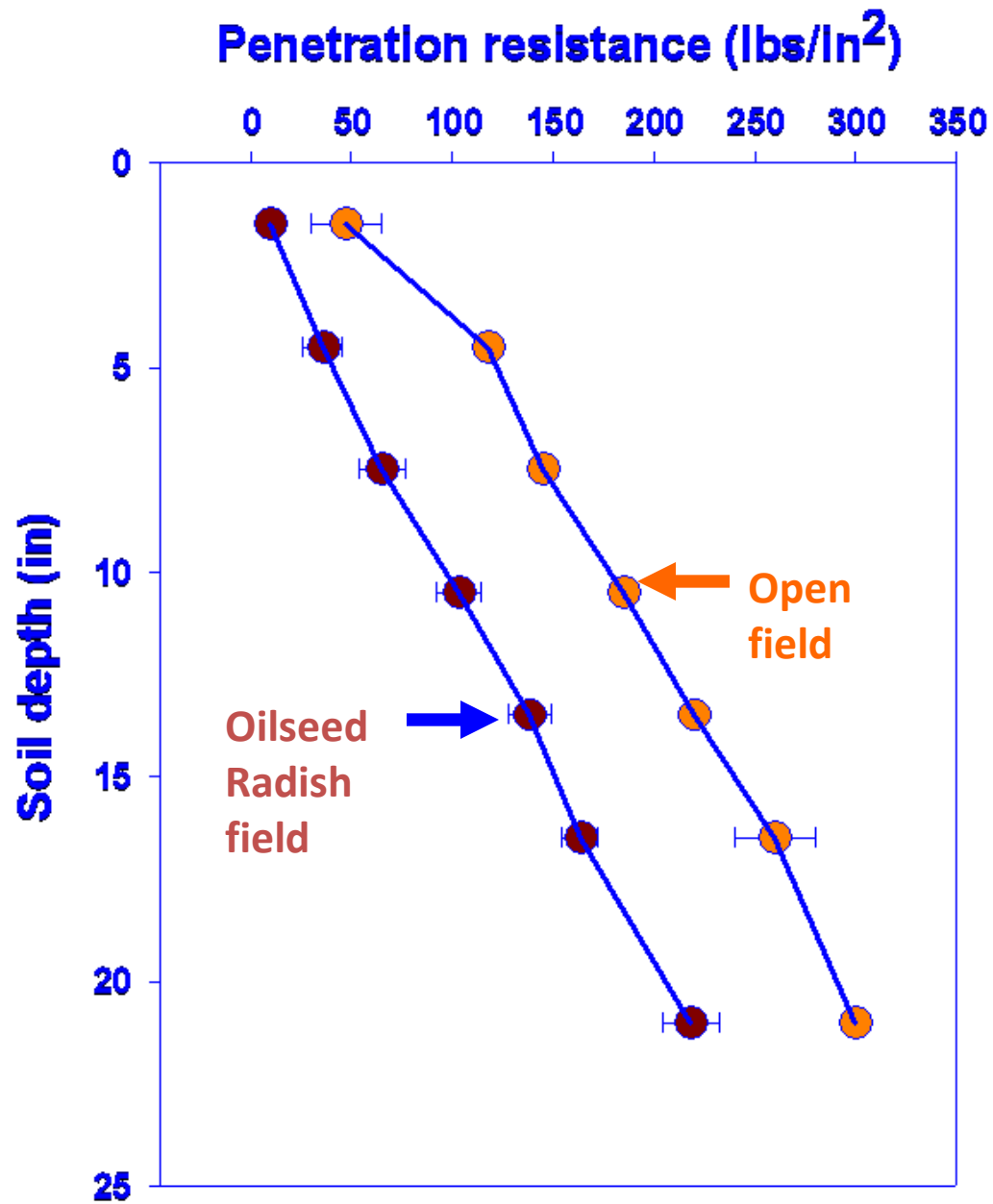


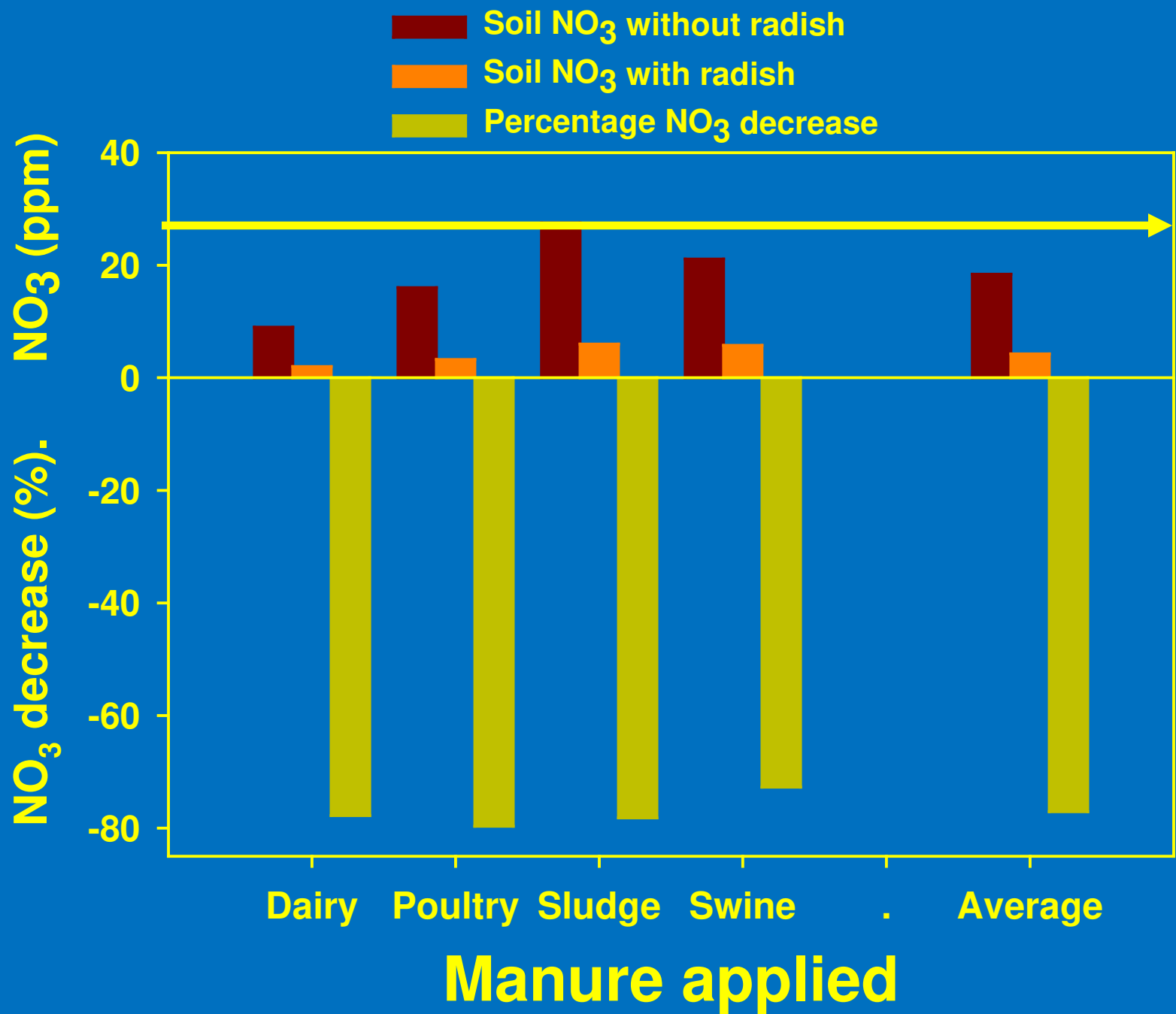


Oilseed Radish

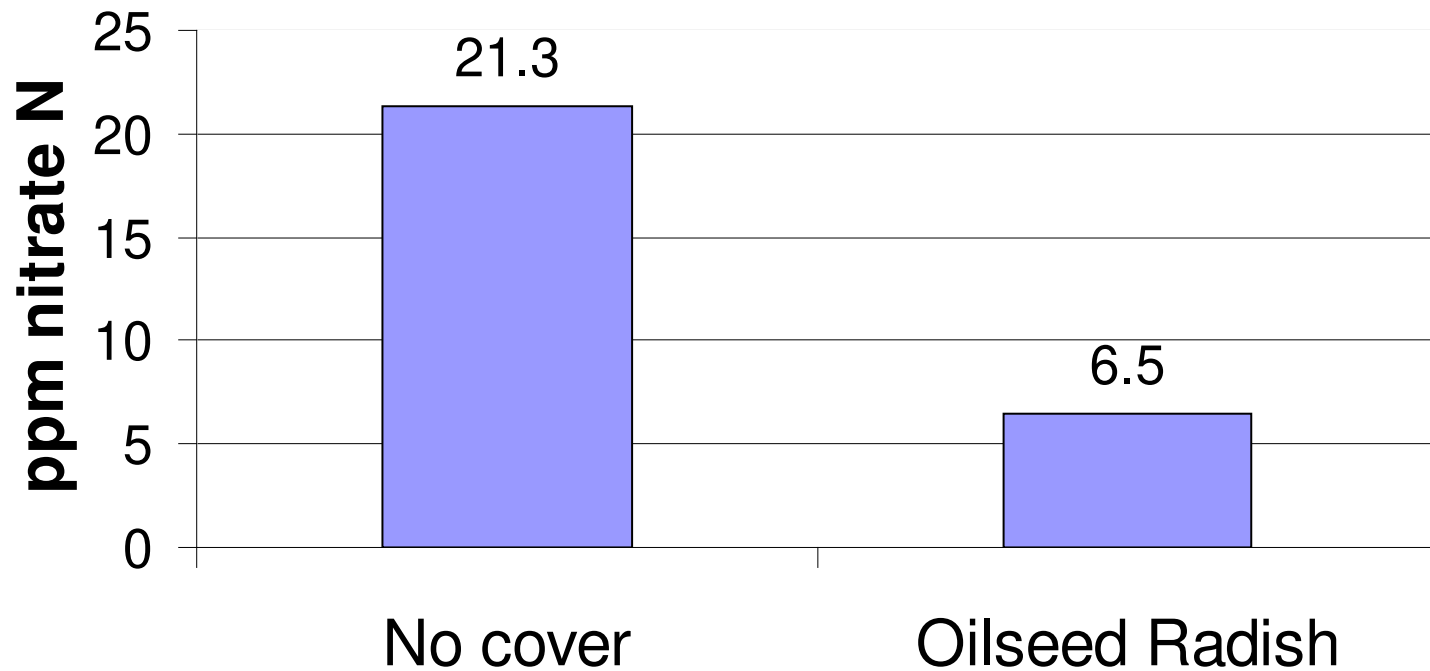


- Fast growing
- Absorbs nutrients
- Compaction correction
- Winterkills





Fall soil nitrate after manure application



Average of 24 tests, 7 field sites

Recycling of nitrogen, phosphorus, and potassium by Oilseed radish

Nutrients	Concentration (%)	Content (lbs/a)
Nitrogen	1.89	650
Phosphorus	0.97	23
Potassium	3.27	230
Sulfur	0.81	60
Calcium	2.17	150
Magnesium	0.26	20

Biomass Production

Growth	Oilseed radish		Winter Peas
	w/peas	wo/peas	
Root dia. (in)	2 ¾	2	---
Root length (in)	22	12	7
Fresh biomass (t/a)	40	56	21.6
Dry biomass (t/a)	3.5	4.8	4.3

Oilseed Radish Cover Crop

Alan Sundermeier, Ohio State University Extension, Wood County, Ohio

Overview

Oilseed radish is a unique cover crop that farmers are planting to improve their soil quality for economic crop production. It has the ability to recycle soil nutrients, suppress weeds and pathogens, break up compaction, reduce soil erosion, and produce large amounts of biomass. Freezing temperatures of 20 to 25 degrees will kill oilseed radish which allows for successful no-till spring planting of subsequent crops. As a fast growing, cool season cover crop, oilseed radish is best utilized when planted after small grain (e.g. wheat) or corn silage harvest. Excess nutrients in manure amended soil are rapidly absorbed by this cover crop, thus preventing leaching or runoff of nutrients into water systems.

Photo by Alan Sundermeier



Description

Oilseed radish (*Raphanus sativus* [L.] var. *oleiferus*), belongs in the Brassicaceae plant family, commonly called mustards. The Daikon type of oilseed radish has a large, fleshy taproot that can grow 2 to 3 inches in diameter and one foot or more in length (Fig. 1), not including the fine root hairs that spread from the main taproot. Above ground growth consists of

two feet in height in a semi-erect stature. Leaf stems easily break from the main root, therefore traffic or grazing will destroy plant growth (Fig. 2).

Photo by Alan Sundermeier



Fig. 2. Succulent broad leaves on oilseed radish grow rapidly by utilizing excess nutrients in soil.

Planting Recommendations

As a cool season cover crop, oilseed radish is best suited for early fall growth. When given 60 days or more of plant development, maximum return on seed investment can be realized. Opportunities for planting oilseed radish in a cropping system would include:

- After small grain harvest (e.g. wheat)
- After vegetable or sweet corn harvest
- After corn silage harvest
- After early maturity soybean harvest

Seed is planted to a depth of one-half inch. Seed size is similar to alfalfa; therefore, when using a drill, a small



Diakon Tillage Radish

Ground hog Radish