



■ by Jon Cooner

## IMPERIAL WHITETAIL

# REVIVE

A New True Rotational Crop For Spring and Summer

**N**ew Imperial Whitetail Revive is an annual food plot planting designed as a rotational crop for planting in spring. Revive freshens the soil and improves soil quality and nutrient uptake for the next planting. By incorporating Revive into a multi-year planting rotation with perennials and fall annuals, you can maintain your soil in top growing condition and maximize efficiency in the uptake of nutrients from the soil.

Let's be clear about what Revive is: It's a blend of buckwheat and sorghum designed as a soil revitalization crop, not primarily as a forage for deer. As such, it's a best-practices tool that will appeal to hunters and managers who adopt a year-round, multi-year approach as stewards of their land.

### REVIVE IS A TRUE CROP ROTATION TOOL

Revive isn't a traditional food plot planting that would be planted to at-

tract and hold deer as forage. Rather, it's a true crop rotation crop designed to be planted in spring and summer between perennial food plot plantings, or in spring between fall annual plantings, primarily to revitalize the soil.

Crop rotation is a practice applied in seedbeds that have had the same crop growing in them for long enough that the soil builds up naturally occurring fungi and pests. The rotation crop should consist of different types



## REVIVE®

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- Soil type required: well-drained sandy loam to medium-heavy soil.
- pH level required: 6.0 to 7.5. Sunlight required: six hours per day.
- Seeding rate: 49 pounds per acre. Seeding depth: ½ to 1 inch.

with brassicas is a buildup of disease organisms (fungi) that can occur when brassicas are planted at the same site again and again. This can be true of any forage that's grown repeatedly in the same spot year after year, but it can be especially true of brassicas.

### REVIVE'S OTHER BENEFITS

There are reasons why Whitetail Institute chose buckwheat and sorghum as the seed components in Revive. As mentioned, Revive is designed primarily as a crop rotation tool to give the soil a disease break. As we'll discuss, it does a lot more.

Revive can tolerate soil pH and fertility that are lower than optimum, and it will still grow quickly. That and the thick stand it produces lets Revive compete with and suppress most annual weeds.

In addition, Revive is a great green-manure crop that mellows the soil. It rapidly produces lots of dry matter that can be tilled back into the soil, where it quickly decays and builds the soil and makes nitrogen and minerals available. Revive is especially good at making phosphorous more available in the soil. Phosphorous is one of the three main soil nutrients plants need, along with nitrogen and potassium. All soils have some phosphorous that plant roots can absorb, but most soil phosphorous is in an unavailable (insoluble) form the plants can't access. Revive roots release acidic compounds that help convert some phosphorous from the unavailable to available form. The WINA62 sorghum in Revive has extensive root systems that find nitrogen that's deeper in the soil, helping to prevent leaching. When Revive is disked or tilled into the soil, the nitrogen becomes available to subsequent crops.

For example, here are the results

of two fall soil tests performed a year apart with a planting of Revive between.

	PRE-REVIVE SOIL TEST 09/03/2020	POST-REVIVE SOIL TEST 09/21/2021	% INCREASE
<b>Phosphorous</b>	47 lbs./A	61 lbs./A	29.78%
<b>Potassium</b>	37 lbs./A	61 lbs./A	64.86%
<b>Calcium</b>	841 lbs./A	897 lbs./A	6.65%
<b>Magnesium</b>	56 lbs./A	83 lbs./A	48.21%

Revive also promotes the health of various beneficial insects and animals. It can be planted in strips to attract pollinators that help control aphids. Revive also promotes a huge diversity of beneficial underground organisms that contribute to soil health, and it improves the ability of air and water to move through the soil column.

### HOW TO USE REVIVE

Revive should be planted in spring after the danger of late frosts has passed. Revive grows quickly and will be ready to till into the soil when 10 percent of the buckwheat in the stand has flowered (that can be as quickly as four to six weeks.) After Revive reaches that stage of growth, till it under (best) or mow and then till it to incorporate the plant matter back into the seedbed. When you do that, the plant matter will rapidly break down and release the nutrients that will be available for uptake by the fall crop.

Perform a laboratory soil test a few weeks after you incorporate Revive into the soil. As mentioned, Revive is fairly forgiving of soil pH that's lower than optimum, but be sure you lime before planting if needed by your subsequent crop.



of plants than the existing crop. Eventually, any seedbed will need to be planted in a rotation crop to freshen the soil of disease (the general term used to describe problems such as brassica toxicity, abundant pests in the soil and spindly crop roots).

With some crops, it can take years for signs to appear that crop rotation is needed. With brassicas, it's recommended that a rotation crop be planted every two years. The main issue