

AGGRAND® NEWS

Healthy Corn Proves the Power of AGGRAND

AGGRAND fertilizers work wonders on corn and AMSOIL Dealer Bill Moulton has proof. His Cherokee Pride ornamental corn is usually about nine-and-a-half feet tall, but by adding a combination of AGGRAND Natural Fertilizer 4-3-3, Liquid Bonemeal 0-12-0 and Liquid Lime to his normal fertilization routine, this summer his corn matured to a height of about 12 feet.

“This AGGRAND corn is the best ornamental corn quality I have ever had. The stalks are the strongest ever.” -AMSOIL Dealer Bill Moulton

Richard A. Ward of Seaman, Ohio experience similar success with AGGRAND. He planted three rows of corn on July 1, 2000. He used three ounces of AGGRAND Natural Fertilizer 4-3-3 for every gallon of water and applied it to the soil after seeding. He also planted three rows of corn using his regular chemical fertilizer.

“I applied the AGGRAND fertilizer two more times as a foliar application,” said Ward, “once when the corn was 14 to 16 inches tall, and once more when it was tasselling. After treating this corn with AGGRAND Natural Fertilizer 4-3-3 it really took off, and it has not stopped growing since.”



Sam Moulton, 8, shows off his grandpa's AGGRAND fertilized 12-foot-tall ornamental corn.

By September 2, 2000, the AGGRAND corn was between six and seven feet tall. The corn that was given chemical fertilizer was only three feet tall.

“I have done a lot of field experiments with other fertilizers,” said Ward, “but I’ve never seen anything work as well as this AGGRAND Natural Fertilizer 4-3-3. I also do deer and turkey food plots and I will be using AGGRAND 4-3-3 exclusively as my fertilizer for these plots. I wish I had heard of AGGRAND a long time ago, but late is better than never.

“The AGGRAND 4-3-3 is so impressive that people slow down to look at my corn and food plots. Then they stop to ask what I did to get them to look so good. I tell them the difference is that I use AGGRAND Natural Fertilizer.”

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– Richard A. Ward



Considering the Cranberry

A glossy, scarlet red, very tart berry, the cranberry belongs to the same genus (*Vaccinium*) as the blueberry, bilberry, and its smaller Scandinavian cousin the lingonberry. Like blueberries, cranberries can still be found growing as wild shrubs in northern Europe, northern Asia and North America.

The first person to eat a cranberry must have felt both delight and disappointment at the sight of a bog full of shiny red berries that tasted so sour as to be nearly unpalatable. The cranberry proved to have many valuable attributes nonetheless, and was revered by early foragers for its high vitamin content and keeping qualities as an ingredient in pemmican. Mashed along with deer meat and fat, cranberries made pemmican a highly nutritious survival ration. The bright red juice could be concentrated into a brilliant dye for blankets and clothing. Combined with cornmeal into a poultice, it was used to disinfect wounds and open sores.

It is likely that the cranberry appeared on the first thanksgiving table in some form or other, and it eventually became the fruit of choice for New England's whalers for the prevention of scurvy.

Known as "craneberries" by early settlers because of the flower's resemblance to a crane's bill and head, the cranberry that we now know from holiday feasts grows on a hardy plant with creeping stems that is cultivated in bogs. While not grown in water, cranberries depend on periods of flooding for both cultivation and harvesting. Cranberries are harvested in September and October, after which the plants enter a dormant period. The bogs are then flooded until thick ice forms, and then drained. The ice and air form a barrier against desiccating winter winds. In the early 1800's, a Massachusetts man discovered that sand blown into the bogs from nearby dunes increased the plants' productivity. This observation led to the development of the commercial cranberry industry in the 1870's. Now every few years, sand is spread on top of the ice in winter, and when it melts in the spring, the sand drops evenly on the cranberry plants, rejuvenating them by encouraging the growth of more underground stems (rhizomes). Cranberries are now often harvested by re-flooding the fields to float the berries into rafts for easier collection.

In the 1880's, a New Jersey cranberry grower discovered after spilling a basket of berries down stairs that when he went to pick them up, all the best berries had ended up at the bottom. The cranberries had graded themselves because the best berries bounced all the way down, while the lower quality ones stayed put on the stairs. The little air pockets in the good berries gave them the nickname "bounceberries", and led to the invention of bounceboards, which allowed for the mechanical grading of the fruit.

The major cranberry-producing areas in the U.S. are Wisconsin, Massachusetts, New Jersey, Oregon and Washington, in order of importance.

Healthy Berry Benefits

The cranberry has long been valued for its ability to prevent and treat urinary tract infection. Recent studies suggest that it may also help promote gastrointestinal and oral health, prevent the formation of kidney stones, lower LDL (bad) and raise HDL (good) cholesterol, aid in recovery from stroke, and even help prevent cancer.

Kidney infections and most other infectious diseases are initiated by the adhesion of pathogenic organisms to the tissues of the host. The cranberry's ability to block this adhesion has been demonstrated not only against *E. coli*, the bacterium most commonly responsible for urinary tract infection, but for a number of other common pathogens as well, including the bacterium responsible for most gastric ulcers.

Cranberries contain quinic acid, unusual in that it is excreted unchanged in the urine, which becomes sufficiently acidic to prevent the formation of kidney stones. Cranberry juice has been shown to reduce the amount of ionized calcium, a major cause of kidney stone formation, in the urine of people with recurrent kidney stones by more than 50 percent.

Other beneficial effects of the ubiquitous cranberry include: Raising HDL (good) cholesterol by 10 percent with just three glasses of juice per day, corresponding to an approximately 40 percent reduction in risk of heart disease; increasing antioxidant levels (cranberries contain five times the antioxidant content of broccoli); inducing cancer cells to undergo apoptosis (programmed cell death).



Weeds Help You Diagnose Soil Problems

Understanding why a particular weed is growing in a garden or field can help a grower figure out how to control it. Weeds will often contain high amounts of the mineral(s) that the topsoil is lacking, and they can be the key to isolating a particular soil problem. For example, the presence of certain weeds can indicate soil compaction, low fertility levels, excess soil acidity or alkalinity, or the absence of certain key nutrients. Many of these soil problems are the result of the use and overuse of agricultural chemicals. These toxins, for that is what they are, gradually deplete the soil of its biological life, slowing decomposition, reducing nutrient availability, and increasing soil compaction. Earth-worms are soon discouraged and the life seeps slowly from the soil. Weeds are nature's way of helping to rebuild damaged soil and showing the observant grower just how to do it. Besides being good indicators, deep-rooted weeds can bring scarce minerals back up to the surface and make them available to crops via decom-



position. This is simply a continuous, natural soil-balancing process that increases the level of organic matter via microbial activity. Gardeners and farmers have adapted to this process by delegating certain weeds, called green manures or cover crops, and using natural fertilizers to return nutrients and organic matter to the soil, encourage increased microbial activity and root growth, and attract a healthy earth-worm population.

Make conditions less favorable for a variety of weeds by using AGGRAND Natural Fertilizer 4-3-3 to encourage microbial activity and speed up decomposition and nutrient availability. Weed pressures can often be reduced by balancing the phosphorus (P) to potassium (K) ratio to about 2:1. Use equal amounts of AGGRAND Natural Liquid Bonemeal 0-12-0 and AGGRAND Natural Kelp and Sulfate of Potash (about 2 oz each/gallon of water per 25 square feet) for soil balancing. A soil test is recommended to establish a starting point.

Fall and Winter Are Decomposing Time

How To Handle Garden Leftovers

The garden has been cleared of all the leftovers from the growing season. The leaves have been raked and the lawn has been mowed for the last time. Now comes the second harvest: all that's left of the nutrients and minerals that were taken from the soil to grow the vegetables, fruits and herbs you enjoyed over the summer. This represents an investment of sunlight, fertilizer and time, so let's not waste it. It's time to start up the compost heap.

Begin by layering the leaves and grass clippings alternately, with some of the bulkier material between layers to trap pockets of air to help supply oxygen to the decomposing microbes. A one-inch layer of garden soil or old compost added occasionally will add microbes and help compact the pile, allowing good heat buildup. With this method, and regular turning and wetting down (moist but not sopping), you will end up with a nutrient- and mineral-rich material called humus that is easily used by plants when added to garden soil.

To help the composting process along, sprinkle some

AGGRAND Natural Fertilizer 4-3-3 on the pile (3 oz./gallon of water) before layering or turning, and leave the top of the pile concave so liquid can seep down gradually. Cover the pile to keep rain from over-saturating it.

Worm Composting

The easiest way to compost is to introduce composting worms, aka red wigglers (*Eisenia fetida* or *Eisenia andrei*) into your pile and let them do the turning. There are several places to find them on the Internet, and they may cost around 20 to 25 dollars per 1000, which is all you need to get started. Simply make a hole into the center of your pile and place the worms in it. Cover with a healthy layer of fresh compostables, water in with AGGRAND 4-3-3 and let them get to work. In a few weeks your compost pile

will begin to shrink as the worms do their duty. They will even take care of household food scraps. Just remember to dig a hole for the scraps and then cover with leaves. If you live in a frigid climate, you might want to try indoor worm composting, which is easily researched online.



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Power of AGGRAND!
Cranberries: The Perfect Crop?

AGGRAND Improves Plant Health

AGGRAND feeds beneficial soil microbes, increasing the level of antioxidants in your plants.

Studies have shown that the introduction of microbes into plant growth cycles generates an anti-oxidative environment in the soil. This in turn can lead to an increased accumulation of antioxidants in plant tissues, contributing to the general state of health.

The AGGRAND Soil Sample Kit

Fall or early winter, before the ground freezes, is a good time to take soil samples for nutrient analysis. The results should arrive within a few weeks, and you'll have plenty of time to plan your garden and fertilizing schedule accordingly.

The AGGRAND soil sample kit, G-1374, costs one dollar and includes everything you need to collect your sample. Complete instructions are included, and it costs \$12.70 for a basic analysis for one sample. You'll send it to Midwest Labs in Omaha. They send a copy of the analysis to you and one to AGGRAND. We'll go over it and send you a copy of the AGGRAND fertility guide, showing you which AGGRAND fertilizer products to use. It's a good deal from AGGRAND.



AMSOIL helps get your vehicle going, so why not let AGGRAND get your garden growing?

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Al Amatuzio President and CEO, AMSOIL INC.

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