Unlike any other cover crop product, only PURE-FORMANCE products contain the genetic ability to give you uniform growth and consistent, dependable performance in every bag.

Pure Genetics for

Pure Performance

COVER CROP SEED







- Guaranteed Genetic Purity
 Predictable Results
- Increase Soil Fertility Increase Crop Production
- Improve Soil Quality Add Vital Organic Matter
- Weed Suppression Crowd-out Competing Plants
- Reduce Water Runoff Stop Soil Erosion Due To Runoff





THE PURE-FORMANCE[™] ADVANTAGE PURE GENETICS FOR PURE PERFORMANCE

There are a lot of options when it comes to planting your cover crop. As with all seed planted being sure of the variety purity is critical to getting the desired results.

WHAT ARE COVER CROPS

Cover crops are crops planted primarily to manage soil fertility, soil quality, water, weeds, pests, diseases, biodiversity in farm systems.

Cover crops are of interest in sustainable agriculture as many of them improve the sustainability of farm attributes and may also indirectly improve qualities of neighboring natural ecosystems. Farmers choose to grow and manage specific cover crop types based on their own needs and goals but can also be influenced by the biological, environmental, social, cultural, and economic factors they operate in.

SOIL FERTILITY INCREASE CROP PRODUCTION

One of the primary uses of cover crops is to increase soil fertility. These types of cover crops are referred to as "green manure." They are used to manage a range of soil macronutrients and micronutrients. Of the various nutrients, the impact that cover crops have on nitrogen management has received the most attention from researchers and farmers, because nitrogen is often the most limiting nutrient in crop production.

Often, green manure crops are grown for a specific period, and then plowed under before reaching full maturity in order to improve soil fertility and quality.

Green manure crops are commonly legumes. Legume cover crops are typically high in nitrogen and can often provide the required quantity of nitrogen for increased crop production. This quality of cover crops is called fertilizer replacement value

SOIL QUALITY ADD VITAL ORGANIC MATTER

Cover crops can also improve soil quality by increasing soil organic matter levels through the input of cover crop biomass over time. Increased organic matter enhances soil structure, as well as the water and nutrient holding and buffering capacity of soil.

Soil quality is managed to produce optimum circumstances for crops to flourish. The principal factors of soil quality are soil salination, pH, microorganism balance and the prevention of soil contamination.

WEED SUPPRESSION CROWD OUT COMPETITION

Thick cover crop stands often compete well with weeds during the cover crop growth period, and can prevent most germinated weed seeds from completing their life cycle and reproducing. If the cover crop is left on the soil surface rather than incorporated into the soil as a green manure after its growth is terminated, it can form a nearly impenetrable mat. This drastically reduces light transmittance to weed seeds, which in many cases reduces weed seed germination rates.

In a recent study released by the Agricultural Research Service (ARS) scientists examined how rye seeding rates and planting patterns affected cover crop production. The results show that planting more pounds per acre of rye increased the cover crop's production as well as decreased the amount of weeds. The same was true when scientists tested seeding rates on legumes and oats; a higher density of seeds planted per acre decreased the amount of weeds and increased the yield of legume and oat production.

REDUCE RUNOFF

STOP SOIL EROSION AND BETTER UTILIZE WATER

By reducing soil erosion, cover crops often also reduce both the rate and quantity of water that drains off the field. Cover crop biomass acts as a physical barrier between rainfall and the soil surface, allowing raindrops to steadily trickle down through the soil profile. In addition increasing the biomass of the soil helps to retain this moisture.

Just before cover crops are killed they contain a large amount of moisture. When the cover crop is incorporated into the soil, or left on the soil surface, it often increases soil moisture. On farms where water for crop production is in short supply, cover crops can be used as a mulch to conserve water by shading and cooling the soil surface. This reduces evaporation of soil moisture.

NUTRIENT RECYCLING UTILIZE LOST NUTRIENTS BURIED DEEP IN THE SOIL

Cover Crops are an ideal way to re-capture lost nutrients. Nutrients are often carried down the soil profile never to be utilized. Cover crops can tap into those lost nutrients and bring them to the suffer. Choose species with long root systems. The **PURE-FORMANCE** advantage is genetic purity. When you buy any **PURE-FORMANCE** product you can rest assured that it is not a VNS product or simply leftover seed used as filler. All **PURE-FORMANCE** products pass stringent "in-field" inspections or pass the Oregon certification process. This state inspection process tracks the genetic purity from planting to harvest.

While there are many other options on the market, none offer the same genetic purity and performance guaranty that the PURE-FORMANCE cover crop products do. When it comes time to plant your cover crop be sure that you are planting the product that will offer the best chance for success on your farm... plant pure genetics...plant PURE-FORMANCE seed.

PURE-FROMANCE™ PRODUCTS

Cover crop grass and legume performance varies depending on environmental conditions. No single cover crop type or variety is best in all environments. The adaptation of a species or its potential longevity in the filed, is determined greatly by genetic cold-hardiness traits, and its tolerance of other site, soil, and use conditions.

Among the other factors that affect the suitability of a cover crop species are: drought tolerance, soil pH level, fertilizer nutrient requirements, soil damage, intensity, and harvest or grazing.

NITRO[™] PURE-FORMANCE[™] RADISH CONSISTENT PERFORMER

Nitro is ideal for planting in the late summer or early fall. Significant amounts of Nitrogen can be captured when planted 30 to 60 days before the first killing frost. Nitro grows quickly and winter-kills so it does not need to be sprayed out or incorporated to prepare a spring seedbed (in cold climates).

Over the winter, the taproots break down, leaving holes in the ground that assist in water infiltration and rooting of the next crop. These roots also reach deep into the soil profile and gather leftover, unused, residual nutrients and bring them to the surface to be used by the next cash crop.

With its fast-growing ability, Nitro's biomass recycles excess soil nutrients. In addition Nitro easily decomposes, leaving the soil rich in nutrients, and increasing your soils organic matter levels.

CENTURION PURE-FORMANCE™ ANNUAL RYEGRASS TOP PERFORMING RYEGRASS VARIETY

Centurion is a top-rated diploid annual ryegrass. Centurion was bred for improved winter hardiness. Centurion can withstand the cold climates of the upper-mid west and provide farmers with ample forage. Centurion is known as a high forage yielder.

Centurion also has improved disease resistance. Older varieties are susceptible to common diseases but Centurion was selected for improved disease and pest resistance. During the selection process special attention was paid in the breeding for use in the cover crop and forage market.

AERIFI PURE-FORMANCETM RADISH NEW FOR 2014

A new CERTIFIED variety of cover crop radish, Aerifi is bred for uniform growth, delayed maturity and fast establishment with a large tap root. Aerifi excels at scavenging those long lost nutrients deep in the soil profile. As it decomposes those nutrients are released back into the top-soil and made available for the next crop.

Aerifi is also very fast to germinate which allows it to out compete weeds which do nothing to improve soil quality. It's fast growth also means that it will get well established before temperatures drop and kill slower varieties.

As a CERTIFIED crop you are guaranteed that what you plant is the crop you paid for. This certification process assures that the results you have come to expect will be repeated year-after-year and that your cover crop is performing at it's optimum level.

VIVANT PURE-FORMANCE™ BRASSICA QUICK GROWING BRASSICA

Vivant is a quick-growing, leafy brassica with minimal bulb development and is best suited for multiple grazings. Vivant was selected for late bolting and vigorous regrowth after grazing. Vivant's high feed quality and digestibility leads to increased animal performance and increased producer profits.

Vivant has broad adaptation and can be used for all classes of livestock, including dairy, beef and sheep. Vivant can extend the grazing season when cool season pastures slow down in summer are late fall. Vivant re-grows along with other summer annual grasses for multiple grazings. Plant Vivant with cereal grains or Annual ryegrass in the spring or late-summer to provide excellent tonnage and high quality forage to this mix. Vivant can also be used as a break-crop in order to renovate older pastures to different species and newer varieties. An annual crop gives a bigger window to eliminate the old undesirable forage through the use of herbicides and tillage.

With the potential to yield 10,000lbs of dry matter per acre over multiple grazings, Vivant has very good productivity and shows excellent plant persistence after multiple grazings. Use Vivant for excellent early crop growth.

PURE-FROMANCE™ COVER CROP SELECTION GUIDE

| Species | Best To Use After | N Tie Up (*) or Fix(+) | Forage Value | Reduces Compaction | Planting Rate (mono) lbs/acre | Planting Rate (mix) lbs/acre | Planting Date | Planting Depth | Planting Technique | Spring Removal Tool |
|---------------------------|----------------------|---------------------------|-----------------|-----------------------|----------------------------------|---------------------------------|------------------|-------------------|-----------------------|---------------------------------------|
| Centurion Annual Ryegrass | S | ** | *** | *** | 25 | 15 | Aug-Oct | 1/4" | A/D | proper glyphosate in spring |
| Vivant Hybrid Brassica | S/C/SG | * | *** | * | 4 | 2 | July-Sept | 1/4" | A/D | plants decay with winterkill |
| Nitro/Aerifi Radish | S/C/SG | * | ** | *** | 8 | 4 | Aug-Sept | 1/4" | A/D | plants decay with winterkill |
| Austrian Winter Peas | C/SG | +++ | ** | ** | 50 | 20 | Aug-Sept | 1" | D | mow before bloom |
| Hairy Vetch | C/SG | +++ | * | * | 30 | 15 | Aug-Sept | 1" | A/D | mowing, disc or glyphosate with 2,4-D |
| Crimson Clover | C/SG | ++ | *** | * | 15 | 6 | Aug-Sept | 1/4" | A/D | winterkill should occur |
| Cereal Rye | С | ** | ** | ** | 80 | 40 | Aug-Nov | 1" | A/D | proper glyphosate in spring |

S= Soybeans C= Corn SG= Small Grains **KEY** A= Aerial Application D= Drill Application

*/+Good **/++ Better ***/+++ Best

MANAGEMENT FROM BEGINNING TO END

Managing cover crops is just like managing your other crops. Planting methods vary from no-till drilling to flying-on. Some crops can be sprayed out and others worked into the ground. Refer to our guide to help you choose the best option.

Mountain View Seeds brings Oregon's best to you.

Sheltered by Mt. Hood, the Willamette Valley enjoys mellow sunshine, gentle rain and mild winters. It's the grass seed production capital of the world.

In 1946, farmers in Pratum, just east of Salem, founded a co-op to handle the prime seed that grows in our fertile soils. More than a half century later, Mountain View Seeds still reaps the benefits of the outstanding Willamette Valley climate.

In the northern part of the valley, crop rotation and abundant irrigation produce clean, high-quality turf seed.

The grain elevator at the Pratum Co-op has been a Willamette Valley landmark since 1946. For 35 years, the co-op handled public grass seed varieties, adding private varieties in the 1980's. Mountain View Seeds, Ltd., a subsidiary of the Pratum Co-op, was created to manage mounting demand of grass seed production.

At Mountain View Seeds, we rely on experience and people. We know grass seed research, production and processing — after all, we have more than 50 years of experience.

We also take pride in the knowledge and skill of our staff. From research and development to production to order fulfillment, we hire the best... to make buying grass seed easy.





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