



We Maximize Nature's Potential®

North America Product Overview



Serving the U.S.A, Canada and Mexico

germains.com

Seeding a sustainable future

We take great pride in highlighting our unwavering dedication to sustainable business practices. Our unique approach to seed technologies sets us apart – the majority of our products are microplastic-free, and we are working to make all our products microplastic-free. Our proven disinfection processes have cleaned millions of pounds of seeds against seed-borne diseases, preserving seed quality and averting the need for valuable seeds to be discarded in landfills. Furthermore, our precise application of fungicides and insecticides onto seeds contributes to minimizing field applications, promoting an eco-friendly approach to agriculture.

Our Supplier Code of Conduct ensures that all our suppliers adhere to ethical and sustainable standards. Furthermore, our commitment to eco-friendly operations shines through in our processing equipment, powered mainly by renewable solar energy.

Product Descriptions

prime

Emergis®: A process that helps improve the speed of germination, provides a more uniform emergence, and promotes earlier and stronger plant establishment. Priming may only be applied to untreated seeds. *MPF*

All products noted with an E indicate priming.

MPF - indicates product is Microplastic-Free. Most of our products are free from microplastics, except when a conventional chemistry is applied, necessitating a colored filmcoat as mandated by the EPA.

pellet

OxyKote®: Heavy field pellet that splits quickly and neatly when placed in suitably moist growing conditions, precisely graded to improve singulation and plantability of the seed—preferred in the desert regions for surface planting. *MPF*

ProPellet® Light (PPL®): High-quality, lightweight melting pellet used for all vegetable species. Available in three sizes: mini, med, and maxi. *MPF*

ProPellet® Heavy (PPH®): Versatile heavy melting pellet that allows rapid oxygen uptake. *MPF*

ProFlo®: Encrustment coating for added weight improves singulation during planting versus raw seed. Ideal for achieving 55K to 95K seeds per pound for onion. *MPF*

ProFlo® Precise: An upgrade to our standard seed encrustment designed to improve singulation and seed flow through precision planters helping to increase planting speed. *MPF*

ProPellet® Elite: Targeted precise approach for enhancing seed genetics for optimal seedling establishment. By adding essential micronutrients to the pellet, the seed's radicle begins to absorb nutrients as soon as it emerges, helping to strengthen the seedling root and foliage mass.

Explore Our Customizable Seed Solutions

Certain crops and treatments might not be included in the list; feel free to inquire for more detailed information.

Species / Products	Prime	Pellet						Filmcoat		Health				
	Emergis®	PPL®	PPH®	OxyKote®	ProFlo®	ProFlo Precise®	PPL® Elite	Crop Protection	Filmcoat Elite	Gopure®	Gopure® Enhance	Goseed®	Ultim®-ST	SafeGuard®
Arugula/Chicory/Endive/ Escarole/Radicchio	•	•	•	•	•			•						
Beet		•						•		•				
Brassica (Broccoli, Cabbage, Cauliflower, Kale)	•	•						•		•				
Carrot	•	•			•		•	•	•					
Celery/Celeriac		•		•			•	•						
Cilantro (Coriander)								•		•				
Corn								•					•	
Cucumber / Gherkin	•	•				•		•						
Cucurbits (Melon, Pumpkin, Squash)	•							•						
Grains (Wheat, Barley, Oats)														
Leek	•	•						•						
Legumes (Beans, Chickpeas, Peanut, Peas, Soybean)								•					•	
Lettuce	•	•	•	•	•	•		•			•			
Onion/Shallot (Bulb, Bunching, Dehydrated)	•	•			•			•						
Parsley	•							•						
Parsnip	•				•			•						
Pepper	•	•					•	•	•					
Radish								•						
Spinach	•							•						•
Swiss Chard								•		•	•			
Tobacco				•										
Tomato / Tomatillo	•	•						•	•					



Also available in ProBio® for the organic grower. ASCO Organic certificate available upon request.

filmcoat

Crop Protection: Offer a wide selection of crop protection products, including biologicals, that may be applied to several species as a seed filmcoat treatment.

Filmcoat Elite: Upgraded filmcoat with added micronutrients to support early plant development, which aids in increasing root mass and vigor.

health

Gopure®: Conventional seed disinfection treatment that uses a combination of processes and crop protection products that inhibit the growth of seedborne pathogens such as *Xanthomonas*. MPF

Goseed®: Early plant nutrition for lettuce that supports seedling development in variable growing conditions while maximizing the potential nutrient uptake.

ProBio® gopure®: An organic disinfection process that effectively removes seed-borne pathogens such as *Pseudomonas syringae pv* and *Xanthomonas hortorum*. MPF

ProBio® gopure® enhance:

An upgraded certified organic disinfection process for Swiss chard that effectively reduces Bacterial Leaf Spot (*Pseudomonas spp.*) and enhances multi-embryo genetics to maximize germination, improve yield, and reduce labor. MPF

ProBio® SafeGuard®: Certified organic seed treatment for spinach that establishes a barrier around the spinach plant's emerging root system so that it may overcome root colonization by soil-borne fungi *Pythium spp.*. MPF

Ultim®-ST: Non-biological fungicide seed treatment that delivers high-count emergence for growers seeking relief from *Pythium spp.* disease pressure. MPF

Pelleted Product Specifications by Species

To ensure that you receive a high-quality seed pellet, we adhere to quality standards so that our seed treatments perform from planting to germination in the field. Raw seed counts must meet the following ranges so that we may achieve the desired pellet size and coated seeds per pound while maintaining pellet integrity. Seed lots received that do not meet our raw seed count requirements may be returned to the customer and/or processed on a waiver.

Type of Pelleting	ProBio Y/N	Minimum S/C (000's)	Maximum S/C (000's)	Pellet Size	Minimum P/C Spec (000's)	Maximum P/C Spec (000's)	Approx. Build-up
Arugula							
ProPellet L Mini	N	all S/C (small seed)		8.0	165	185	7:1
Beet							
ProPellet L Maxi	Y	25	55	18.0	8	32	5:1
Brassica							
ProPellet L Maxi	Y	80	180	13.0	26	27.5	5:1
Carrot							
ProPellet L Maxi	Y	180	255	13.0	25	32	9:1
ProPellet L Medium	Y	255	400	11.0	38	48	6.5:1
ProFlo	Y	200	350	Air	150	270	1.3:1
Celery							
ProPellet L Medium	Y	500	1,100	9.0 / 8.5	95	128	8:1
ProPellet L Mini	Y	650	1,400	8.0	146	180	5.5:1
Chicory / Radicchio							
ProPellet L Maxi	Y	200	400	13.0	25	30	11:1
ProPellet L Mini	Y	300	400	11.5	40	50	8:1
ProPellet H Maxi	Y	200	400	13.0	16	19	23:1
OxyKote	Y	200	400	13.0	10.5	13	40:1
Cucumber							
ProPellet L Maxi	N	15	17.5	29.0	2	3	6:1
Endive							
ProPellet L Maxi	Y	200	400	13.0	25	34	25:1
ProPellet L Mini	Y	300	400	11.5	34	63	9:1
ProPellet H Maxi	Y	200	400	13.0	16	19	25:1
OxyKote	Y	200	400	13.0	10.5	13	40:1
Escarole							
ProPellet L Maxi	Y	200	400	13.0	25	34	25:1
ProPellet L Mini	Y	300	400	11.5	34	63	9:1
ProPellet H Maxi	Y	200	400	13.0	16	19	25:1
OxyKote	Y	200	400	13.0	10.5	13	40:1

Pelleted Product Specifications by Species

Type of Pelleting	ProBio Y/N	Minimum S/C (000's)	Maximum S/C (000's)	Pellet Size	Minimum P/C Spec (000's)	Maximum P/C Spec (000's)	Approx. Build-up
Kale							
ProPellet L Maxi	Y	115	165	13.0	27	30	5:1
Leek							
ProPellet L Maxi	Y	125	300	13.0	20	32	5:1
ProPellet L Mini	Y	200	300	11.0	32	45	3.5:1
Lettuce							
ProPellet L Maxi	Y	275	600	13.0	24	26	15:1
ProPellet L Medium	Y	500	600	11.5	32	45	10:1
ProPellet H Maxi	Y	275	600	13.0	16	19	27:1
OxyKote	Y	275	600	13.0	10.5	13	40:1
ProFlo	Y	275	600	Air	155	165	2:1
ProFlo Precise	Y	275	600	Air	80	90	5:1
Onion							
ProPellet L Maxi	Y	90	180	13.5	18	21	5:1
ProPellet L Mini	Y	120	180	13.0	24	31	4:1
ProFlo*	N	90	180	Air	55 ± 5	95 ± 5	Build to S/C
ProBio ProFlo	Y	90	180	Air	65	85	50.00%
Parsnip							
ProFlo	N	all S/C (large seed)		Air	Varies	Varies	3:1
Pepper							
ProPellet L Mini	N	55	90	14.0-16.0	14	24	3.5:1
Tobacco							
OxyKote	N	4,700	5,300	7.5	110	129	42:1
Tomato							
ProPellet L Maxi	N	130	250	13.0	20	28	6:1
ProPellet L Mini	N	150	250	11.0	28	46	4:1

Notes:

* ProFlo encrustment for Onion is +/- 5K

PPL = ProPellet Light

PPH = ProPellet Heavy

S/C = Raw Seed count

P/C = Pellet Count

Air = Air Planter

e.g. Stanhay Singulaire

Monosem or Gaspardo in Imperial Valley



We Maximize Nature's Potential®

Liquid Insurance



The ultimate in seed protection

Increase your protection against *Pythium. spp* including Metalaxyl-Resistance with **ultim-ST**. Backed by independent third-party data from trials across multiple sites, environments, and varieties, this cost-effective fungicide is the ultimate assurance you need.

Visit ultimseedtreatment.com
to find out more about our seed treatment
for peas, corn, beans, wheat and more!



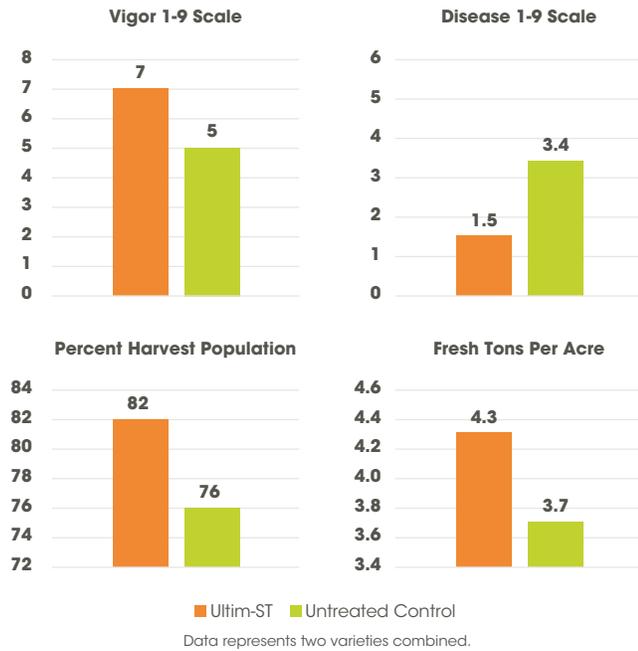
We Maximize Nature's Potential®

The Ultimate Non-Biological Fungicide Seed Treatment

Third-Party Trials indicate that when seeds are planted in soils with *Pythium* pressure, **ultim-ST** gives a clear and significant advantage over nontreated seeds. However, when no soil disease is present, there is no difference between **ultim-ST** or untreated control.

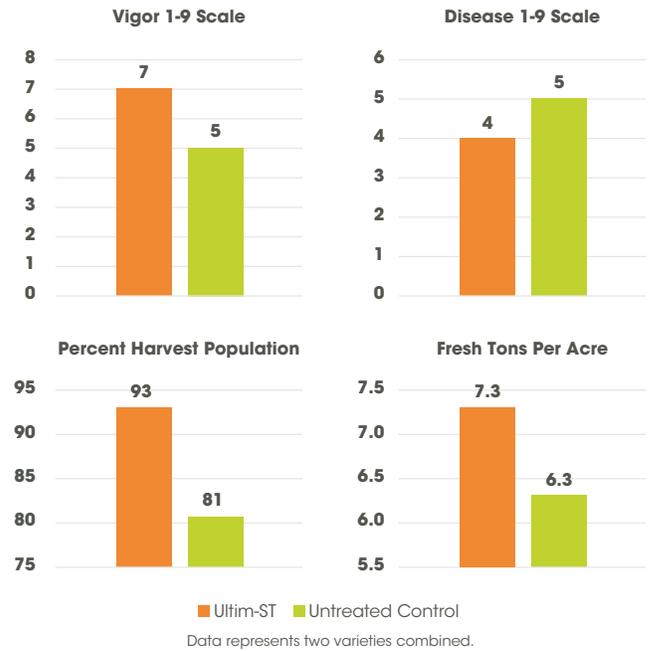
FRESH PEA TRIAL

Trial conducted by Agri-Tech, Whitewater, Wisconsin



SWEET CORN TRIAL

Trial conducted by Agri-Tech, Whitewater, Wisconsin



Raw material for on-site application now available for purchase!

Navigating the logistical challenges and expenses encountered by growers and the seed industry in the seed treatment process can be complex and costly. In response, Germaines introduces **ultim-ST** as a raw material custom blend seed solution, offering flexibility to purchase for on-site or as a direct application by Germaines. Our dedication to delivering efficient, convenient, and customized seed treatment solutions is embodied in **ultim-ST**.

Reach out to your dedicated Account Manager to discover additional information on applying **ultim-ST** to enhance your seed treatment process!

Maximize Yield with Seed Health Technology Solutions

Protect your seed investment with conventional or organic seed technologies



Early plant nutrition for lettuce that supports seedling development in variable growing conditions while maximizing the potential nutrient uptake.



Certified organic seed treatment for spinach that establishes a barrier around the spinach plant's emerging root system so that it may overcome root colonization by *Pythium spp.*



An organic disinfection process that effectively removes seed-borne pathogens such as *Pseudomonas syringae pv* and *Xanthomonas hortorum*.

Elevate your seed's potential with seed health technology solutions. Visit germains.com for more information!

Helping Growers Grow Since 1871



ProBio[®], goseed[®], gopure[®], germains[®], and SafeGuard[®] are registered trademarks of Food Investments Limited.

We Maximize Nature's Potential[®]

Value-Added Benefits of Germain's

Germain's Seed Technology collaborates with our customers across the globe to develop innovative, value-added products that are solutions to real problems encountered by growers and seed production companies. We strive to deliver products and services that meet and even exceed customer expectations.

Because we value our customers, quality is essential to our business. We are committed to continuous improvements with a focus on R&D, and our established Quality Management System provides a framework for measuring and improving our performance.

Customer Service



Local delivery and pick-up services



Shipping arrangements and export documents



Custom packing



Priming and treatment recommendations



Lot history for fast turnaround

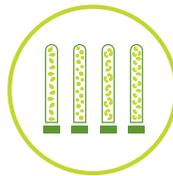
Quality Assurance



Incoming seed sampling and quality examination



Suitability testing for Priming



Consistent production standards



Multi-stage in-process quality assurance



Germination and pathology testing by certified labs

Research & Development



3 Facilities



3 Countries



Ongoing R&D in all areas of our core brands



Internal laboratory, greenhouse, and field trials



Results that meet or exceed customer expectations

Your Trusted Partner in Compliance and Sustainable Seed Technology Solutions

In an era of evolving regulations designed to enhance environmental sustainability and food production practices, Germains Seed Technology stands out as the preferred partner for seed producers and growers.

Every effort has been made to ensure that the contents of this document were accurate and up-to-date at the time of publication (February 2024).

Germains® is licensed to apply chemicals to seed. Treatments adhere to current legislation which may be subject to change. We advise you to check local and national legislation for conditions of use.

Germains® reserves the right to alter product specifications and prices and withdraw products without notice. Please refer to our Terms and Conditions of Sale and Terms and Conditions of Purchase at germains.com.

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