TOMATO SOLUTIONS
2027 SEED GUIDE

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EXTRACTING PARENT SEED FOR HYBRID SEED PRODUCTION

PROCESSING EDITION

DESCRIPTION OF TOMATO HYBRIDS FOR SALE



TSH04 (90 days in 2024) is an early hybrid with excellent yield for its maturity. Fruit size is uniform, and peeled color is good. For product use, TSH04 has medium viscosity and good soluble solids. VF resistant, tolerant to Pinnacle (thifensulfuron methyl) herbicide.
USE TO GET YOUR FACTORY UP AND RUNNING EARLY IN THE SEASON



TSH43 (91 days in 2024) Maturity is about a day later than TSH04 and 4 days earlier than H5108/H1014. Fruit weight is about 30% larger than H1014.Fruit are trilocular improving firmness. Fruit are variable in size with the odd very large fruit. Color is very good. VF resistant and tolerant to Pinnacle (thifensulfuron methyl) herbicide. **EXCELLENT FOR EARLY PASTE AND PEEL PRODUCTION**



TSH44 (92 days in 2024) matures slightly earlier than H5108 or H1014 but yields about 25% more. Fruit size and shape is similar to H5108 or H1014 and very uniform. Firmness is similar before peeling but better after peeling. Soluble solids are the same. Color is superior to H5108 and equal to H1014. Holdability is excellent. TSH44 offers advantages over current hybrids in the same maturity class. VF resistant and tolerant to Pinnacle (thifensulfuron methyl) herbicide.



TSH26 (111 days) is a main mid-season hybrid that **peels easily, with excellent peeled color and appearance**. Fruit are ovate shaped (height:width ratio 1.5) with small exposed stem scars for easy peel removal. Fruit size (61g) is similar to TSH04. Firmness is outstanding. Thicker fruit walls result in better dicing recovery. It is very resistant to blossom end rot. Although not truly a San Marzano type, shape is fairly elongate so that some processors have been able to use this hybrid for their San Marzano style pack while awaiting development of a hybrid with a more elongated fruit shape.VF resistant, tolerant to Pinnacle (thifensulfuron methyl)herbicide.



TSH48 (97 days in our 2024 yield trial)
TSH48 was about 8 days earlier than H1301 or H1648 in our 2024 yield trial and about 5 days later than TSH44 so provides high quality peeled tomatoes for that maturity slot. Yield was equal to H1301 but about 14% less than H1648 (which is considerably later). Fruit size is larger than H1301 but smaller than H1648, making it ideal for whole pack. TSH48 also has the crimson gene which gives it better color than H1301 and similar color to H1648 which also has the crimson gene. Shape is oval with a height:width ratio of 1.34. VF resistant, and tolerant to Pinnacle (thifensulfuron methyl) herbicide.



TSH49 (99 days in our 2024 yield trial)
TSH49 was about 6 days earlier than H1301 or H1648 in our 2024 yield trial and about 7 days later than TSH44 so provides high quality peeled tomatoes for that maturity slot. Yield was equal to H1301 and competitive with H1648 (which is considerably later). Fruit size is larger than H1301 but smaller than H1648, making it ideal for whole pack. TSH49 also has the crimson gene which gives it better color than H1301 and similar color to H1648 which also has the crimson gene. Shape is oval with a height:width ratio of 1.34. VF resistant, and tolerant to Pinnacle (thifensulfuron methyl) herbicide.

SAN MARZANO TYPE



TSH52 (105 days) is a San Marzano type with elongated fruit with height:width ratio of 1.95 and cylindrical fruit shape. Resistance to fruit breakdown due to fungal diseases is excellent leading to an extended harvest window. Colour is superb due to the presence of the crimson gene. Yield is very good, comparable to other machine harvest hybrids of the same maturity. VF resistant. Tolerant to Pinnacle herbicide.

SUPER FIRM HYBRIDS



TSH53 (108 days) combines the crimson gene (ogc) for color, **super firm (sf)** gene, and the alc gene for enhanced field storage and rot resistance. It matures at the same time as H3406 but has a more concentrated ripening pattern. The fruit are extremely firm and are ideal to finish the season, maintaining high quality right to the end. Fruit were slightly smaller than H3406 at 55g compared to 59g in 2025. For comparison, H1301 was 52g. Soluble solids are similar to H3406 and H1648. This hybrid offers significant advantages in withstanding the rigors of machine harvest as well as reducing handling losses in the factory. Smashed and broken fruit are reduced and due to the lack of gel liquefaction in the locules, the problem of juice leaking out of bulk trailers is eliminated. Recommend early June planting for late harvest. VF resistant. Tolerant to Pinnacle herbicide.



TSH54 (105 days) combines the crimson gene (ogc) for color and the **super firm (sf)** gene. It matures about 1 day later than H1648 and 3 days earlier than TSH53. The fruit are extremely firm and maintain their integrity without softening or breakdown for several weeks after they are ready to harvest. Color is outstanding due to the combination of the crimson gene and the super firm trait which enhances internal color in the locules. This hybrid offers significant advantages in withstanding the rigors of machine harvest as well as reducing handling losses in the factory. Smashed and broken fruit are reduced and due to the lack of gel liquefaction in the locules, the problem of juice leaking out of bulk trailers is eliminated. Recommend planting right after the early hybrids to harvest in early September to maximize the benefits. VF resistant. Tolerant to Pinnacle herbicide.

TSH55 (101 days) combines the crimson gene (ogc) for color and the **super firm (sf)** gene. It matures about the same time as TSH48 and TSH49. It is about 4 days earlier than H1301 with equivalent yield and fruit size. The fruit are very firm and maintain their integrity without softening or breakdown for several weeks after they are ready to harvest. Color is outstanding due to the combination of the crimson gene and the super firm trait which enhances internal color in the locules. This hybrid offers significant advantages in withstanding the rigors of machine harvest as well as reducing handling losses in the factory. Smashed and broken fruit are reduced and due to the lack of gel liquefaction in the locules, the problem of juice leaking out of bulk trailers is eliminated. Recommend planting right after the early hybrids to harvest in early September to maximize the benefits. VF resistant. Tolerant to Pinnacle herbicide.



TSH56 (93 days) combines the crimson gene (ogc) for color and the **super firm (sf)** gene. It matures about the same time as TSH44 or other early hybrids. The fruit are extremely firm and maintain their integrity without softening or breakdown for several weeks after they are ready to harvest. Color is outstanding due to the combination of the crimson gene and the super firm trait which enhances internal color in the locules. This hybrid offers significant advantages in withstanding the rigors of machine harvest as well as reducing handling losses in the factory. Smashed and broken fruit are reduced and due to the lack of gel liquefaction in the locules, the problem of juice leaking out of bulk trailers is eliminated. VF resistant. Tolerant to Pinnacle herbicide.



Effectiveness of Chlorine Seed Treatment used by Tomato Solutions



Untreated seed showing fuzzy surface ideal for harbouring bacterial and viral pathogens.

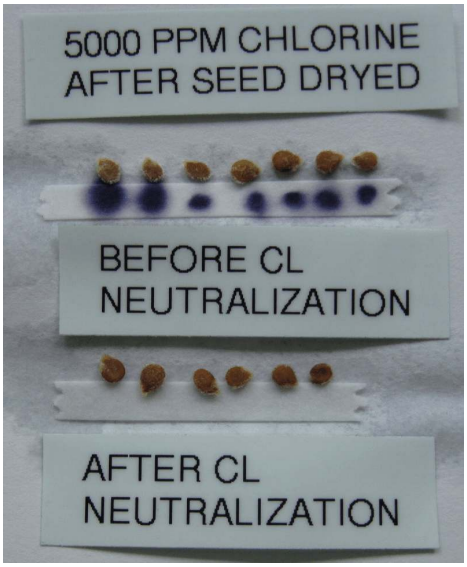


Seed after treatment with 5000 ppm chlorine for 60 minutes, showing removal of fuzz from seed coat. Embryos are visible through bleached, disinfected seed coat.

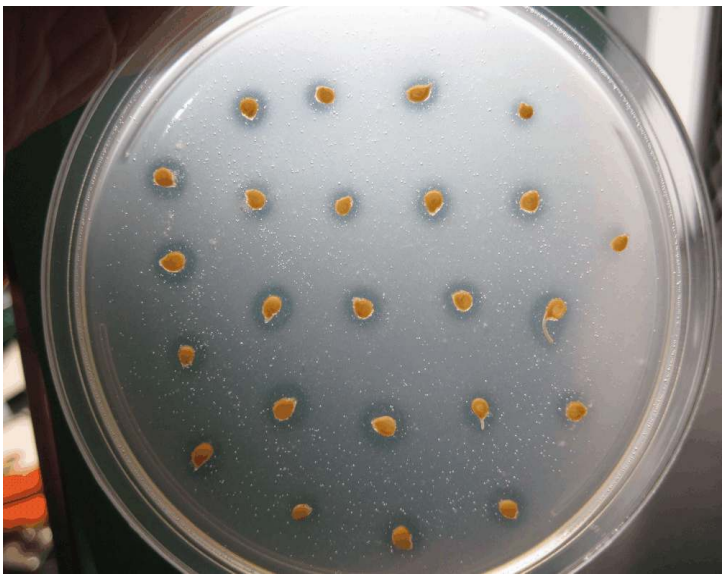
A 42 page report "TOMATO SEED DISINFECTION WITH CHLORINE" is available on our website at www.tomatosolutions.ca

Demonstration of effectiveness of chlorine seed treatment in leaving a chlorine residue

Tomato seed was treated with chlorine using our commercial procedure (soaked for 24 hours at 6°C prior to treatment for 60 minutes in 5000 ppm chlorine at 20°C and pH 9.5). Half of the seed was rinsed twice with sterile water and dried aseptically. The other half of the treated seed was neutralized with sodium thiosulphate (a chlorine neutralizer) and also dried overnight. Portions of the water rinsed and neutralized seed were placed on chlorine test paper (Hydrion Sanitizer Test Paper, Micro Essential Laboratory Inc.) to demonstrate the presence of chlorine residues. These paper strips turn various shades of purple depending on the amount of chlorine present in a liquid solution. When dry treated seed is placed on the strips moistened with water, the purple color indicates a chlorine residue. The dried seed was also placed on PDA seeded with bacterial canker bacteria (C.m.m.) just prior to pouring the plate and incubated to determine the effect of chlorine residues on bacterial growth. As shown below, our seed carries a chlorine residue after treatment and drying which will inhibit the growth of pathogenic bacteria.



Chlorine residue shown to be present on dried seed; not present when chlorine is neutralized.



Effect of chlorine residue on dried seed on growth of canker bacteria. The clear zone around each seed. indicates bacterial growth inhibition.

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2027 PRICE (contact Tomato Solutions for current pricing)

Product Information

Pelletizing is done by Germain's Technology Group (mini-pellet, coloured orange).
Only conventional breeding methods are used to produce our hybrids (no GMO's).
All seed is surface disinfected with chlorine to eliminate bacteria and fungi.
No other chemical seed treatments are applied.

Terms and Conditions of Sale

TERMS: PAYMENT ON DELIVERY. MINIMUM ORDER OF 200 M SEEDS.
Please e-mail, or phone your order to us. Invoices will be e-mailed back to you.
Price includes shipping.

Note: Photo is a representation of the variety. Actual appearance may vary. All variety information presented herein is based on field and laboratory observation. Actual crop yield, quality, and level of claimed pest and pathogen resistances, are dependent upon many factors beyond our control and NO WARRANTY is made for crop yield, quality, and level of claimed pest and pathogen resistances. Since environmental conditions and local practices may affect variety characteristics and performance, we disclaim any legal responsibility for these.

NOTICE TO BUYER: WARRANTY AND CONDITIONS OF SALE: TOMATO SOLUTIONS warrants that the seed sold has been labelled as required by law. TOMATO SOLUTIONS limits its warranty to the full amount of the purchase price of the seed. TOMATO SOLUTIONS makes no other express or implied warranty of merchantability, fitness for a particular purpose or otherwise of its seed or the crops grown from the seed. TOMATO SOLUTIONS makes no representation regarding freedom from seed borne diseases and disclaims any liability relating to such diseases whether previously known to exist or not identified until this seed is grown. Any recommendations for use of the seed are based upon TOMATO SOLUTIONS' best judgement, but there is no warranty of results to be obtained in connection therewith. As a condition to any liability, claims for defects in the seed must be presented to TOMATO SOLUTIONS as soon as practicable and, in any event, WITHIN THIRTY DAYS AFTER DISCOVERY. By acceptance of the seed, the Purchaser acknowledges that this limited warranty and disclaimer herein before described, are conditions of sale and that they constitute the entire agreement between the Vendor and the Purchaser regarding warranty and/or any other liability or conditions. IF THIS LIMITED WARRANTY AND GUARANTEE IS NOT ACCEPTABLE TO THE PURCHASER AS A CONDITION OF SALE - THEN THE PURCHASER MUST NOT PLANT THE SEED AND MUST RETURN THE SEED IN ITS ORIGINAL UNOPENED PACKAGE, AND THE PURCHASE FUNDS SHALL BE REFUNDED.

QUALITY ASSURANCE PROCEDURES

1.) All seed is pelletized with a split coat pellet from Germain's in California to allow easy seeding and quick uptake of water for fast germination.

2.) All seed is treated with chlorine to eliminate surface borne pathogens: bacterial spot, speck, and canker, tobacco and tomato mosaic viruses, pospiviroids, and Tomato Brown Rugose Fruit Virus (ToBRFV). An extensive report describing tomato seed treatment with chlorine is available on our website. This treatment also enhances uniformity and speed of germination. Seed treated in this way can be stored almost indefinitely (pelletized or raw) if refrigerated under dry conditions in sealed plastic bags or containers.

3.) After treatment and drying, seed is vacuum separated to clean out any light weight particulate matter and to remove any poorly developed seeds. Subsequently, seed is passed over a vibratory grading screen in a single layer to remove small seeds, and is visually inspected to remove anything that is not a tomato seed.

4.) Seed is germination tested at every stage of production and germinations are done every year on all seed lots offered for sale.

5.) Seed is inspected by the Canadian Food Inspection Agency (CFIA) prior to shipping to the U.S.

6.) Every seed lot is tested for the presence of Tobacco and Tomato Mosiac virus using an ELISA test done by the Pest Diagnostic Laboratory at the University of Guelph. Seed that is not acceptable is discarded. All seed is tested for pospiviroids and ToBRFV and any positive seed lots are discarded. All seed has a phytosanitary certificate attesting to freedom from 6 pospiviroids and ToBRFV.

7.) We have done extensive testing by the Pest Diagnostic Laboratory for the presence of Xanthomonas campestris vesicatoria, the causal agent of bacterial spot on over 100 commercial seed samples using the latest PCR technology. Due to our seed treatment, we have never had a positive test for this pathogen on our treated seed.

8.) All seed lots are grown out and visually inspected for purity.

9.) All hybrids are produced using breeding lines developed and tested here in Canada by a qualified plant breeder and plant pathologist. This ensures that hybrids are adapted to our environment and climatic conditions.

10.) Hybrid seed is produced in India in small plots under strictly controlled conditions. Any off-type plants are removed prior to making the crosses. Plants are regularly inspected for any viral symptoms and if any are found they are carefully removed to prevent any contamination of remaining plants. A strict protocol is followed to prevent the introduction of viral diseases. Seed extraction is done using a short treatment time with pectic enzyme to ensure high germination and seed vigour. A high level of communication between India and Canada is maintained.