



Superficial scald is a physiological disorder that occurs mostly in apples and pears, especially during postharvest and storage. It is one of the main causes of rejection of these fruits for export. A research team from the Universidad de Talca, led by Carolina Torres, Ph.D. in Horticulture, developed a 100% natural anti-scald alternative that contains vegetable-derived squalane and is highly effective in preventing superficial scald on fruit during prolonged storage periods.

CURRENTLY AT A STAGE OF DEVELOPMENT EQUIVALENT TO TRL 7

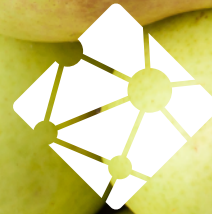
It has been validated at a pre-commercial scale in an operational environment. It improves fruit firmness and color. The new anti-scald has been validated on a semi-industrial scale in Chile and the United States on pears and apples. Tests were carried out both in controlled environments and conventional cold storage.

COMPETITIVE ADVANTAGES

Active ingredient: vegetable-derived squalane (antioxidant), available through identified suppliers. Low ethylene production. Preserves the organoleptic properties of the fruit and prevents the occurrence of other physiological disorders. High efficacy preventing superficial scald (76% to 100% control) under different storage conditions. Additional positive effects on fruit quality (color, firmness, lower ethylene production, better texture and overall appearance). As it is applied post-harvest, it could be marketed as an "Antioxidant coating/film of plant origin", thus reducing regulatory requirements

INTELLECTUAL PROPERTY

1. Argentina: Application number P 20170103044 filed with the Argentine Patent Office (INPI) dated November 3rd, 2017. Status: GRANTED Date: 06/30/2021.
2. Europe: Application number 17900213.4 filed with the European Patent Office dated August 27th, 2019. Status: GRANTED Registration Date: 09/20/2023.
3. United States: Application number 16/490,046 filed with the United States Patent and Trademark Office (USPTO) dated August 29th, 2019. Status: POSSIBLE OFFICIAL ACTION OR ACCEPTANCE Date: second half of 2023.
4. Peru: Application number 001787-2019/DIN filed with the Peruvian Patent Office (INDECOPI) dated August 28th, 2019. Status: 5TH ANNUITY Date: 03/30/2024.
5. Chile: Application number 201902351 filed with the Chilean Patent Office (INAPI) dated August 20th, 2019. Status: GRANTED Date: 08/25/2022.



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Plant-derived Squalane Compounds to Reduce Superficial Scald in Apples and Pears

TEAM



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