

Starch Retrogradation

food-science, food-chemistry, starch

ScienceOfFood 1 April 25, 2020, 9:11am

What's the science behind stale bread? 🍞🍞🍞🍞

Starch retrogradation is the technical term for bread staling. It's the reason why your bread changes in texture and mouthfeel as it ages. In this video, we'll show you how starch retrogradation occurs and how you can delay it to have a softer, tender bread for a longer time.

<https://youtu.be/13ICPBTnqKo>

4 Likes

Divya Keshri 2 May 6, 2020, 2:31pm

Hii

I work in developing the bakery premixes... But I am facing one issue in my vanilla sponge cake... Issue- it is crumbly and dry... Could you please let me know that whether I can use modified starch instead of native starch Or could use some humectant like glycerol... Or anything which resolve this issue.

mozaydogan 3 May 6, 2020, 9:41pm

What is the formulation of your cake?

ScienceOfFood 4 May 7, 2020, 1:15pm

Does your cake come out of the oven dry and crumbly? Or does it take a few hours/days before it gets that texture?

Roy 5 May 8, 2020, 12:43am

Premixes are dry ingredients based...so humectants like glycerin, sorbitol are off.

Sponge cakes mixes are usually dry in texture if just made by adding water...

If its crumbly adding gums like xanthan ,guar ,carboxymethylcellulose will provide some strength.

It should be balanced with respect to the tenderizer and toughener components of the cake.

3 Likes