

Concontrol promotes comparative studies to determine the antifungal effectiveness of cheese preservatives (PART 2)



Concontrol has carried out a study to determine if in the coatings containing the preservatives pimaricin and sorbic acid, there is a synergy of their antifungal effectiveness against the *Penicillium discolor* fungus. That is, if an increase in the antifungal effectiveness of our coatings against this fungus is observed when pimaricin and sorbic acid act together.



To carry out this study, the same methodology was followed as in the previous study using a quantitative microbiological analysis on cheese. With this analysis, the colony-forming units of the *Penicillium discolor* fungus are counted, which appear in the cheese samples once the fungus has been seeded and our coating has been applied.

First of all, in tables 1 and 2, a delay in the appearance of the fungus is observed in those samples where a coating containing a higher percentage of sorbic acid and pimaricin is applied.

Table 3 shows us that, by increasing the percentage of sorbic acid in a coating with the same concentration of pimaricin, there is less growth of the fungus. The same effect is observed when the amount of pimaricin is increased in a coating containing a certain concentration of sorbic acid. Considering this fact, we can say that there is a certain synergy between the two preservatives against the fungus *Penicillium discolor*.

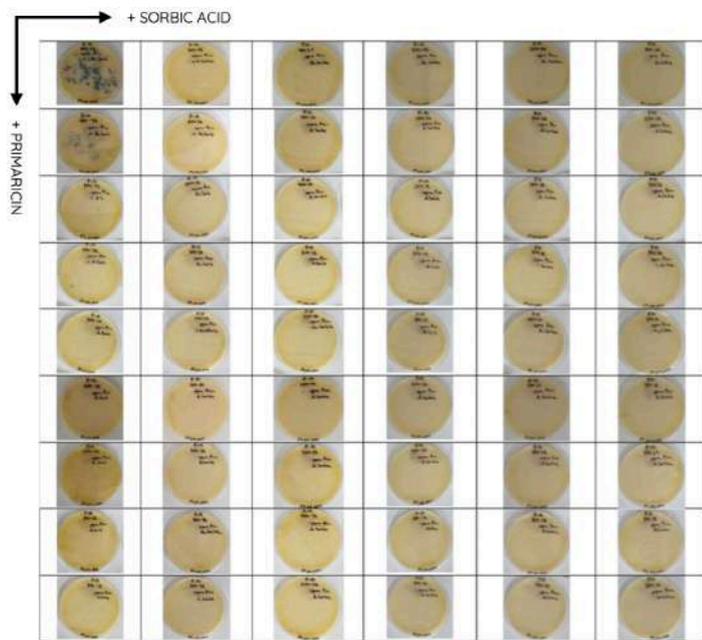


Table 1. Evolution of the growth of the fungus on day 5.

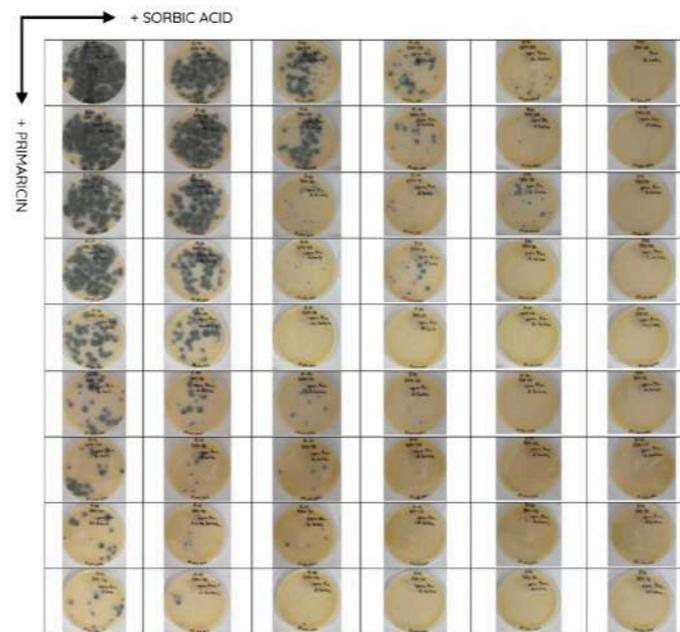


Table 2. Evolution of the growth of the fungus on day 8.

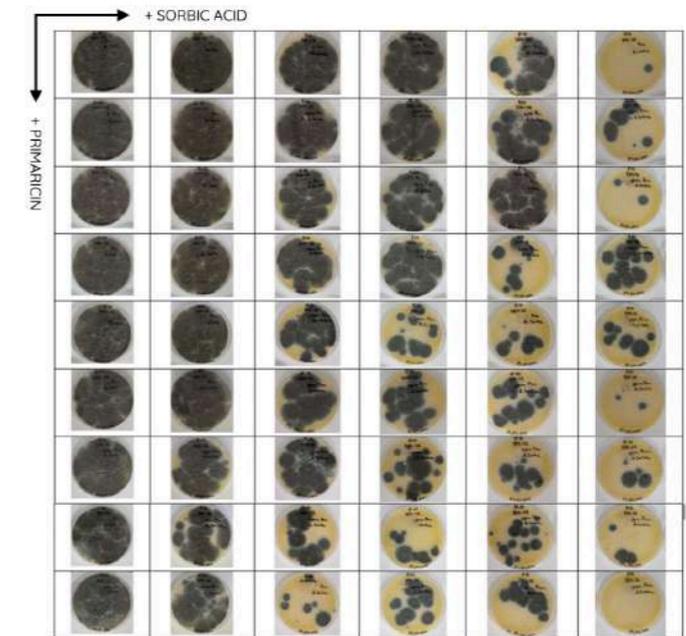


Table 3. Evolution of the growth of the fungus on day 14.

This new methodology that Concentrol has created to determine the effectiveness of the antifungal activity of preservative coatings on cheese has great international relevance, and has attracted a lot of interest in the cheese industry. For this reason, we are studying the possibility of incorporating this method in subsequent studies with other fungi that have a previous characterization.