

Synergistic Effect

The hurdle effect allows the use of higher levels of the individual inhibitors than the minimum necessary to prevent growth of microbes which can result in a more organoleptically acceptable product (e.g., dried meats can have a higher water activity with a lower pH). In other words, the meat product is more acceptable (e.g., more tender) due to the higher water activity, but normally this higher water activity would not make the product shelf-stable. By lowering the pH, the combination of the final water activity and the pH results in a shelf-stable product.