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(54) Title: USE OF METHYLSULFONYLMETHANE (MSM) TO MODULATE MICROBIAL ACTIVITY

(57) Abstract: Disclosed herein are methods of use of methylsulfonylmethane (MSM) to modulate microbial activity, such as to enhance or inhibit the activity of microorganisms. In one example, MSM (such as about 0.5% to 5% MSM) is used to enhance fermentation efficiency, such as to enhance fermentation efficiency associated with the production of beer, cider, wine, a biofuel, dairy product or any combination thereof. Also disclosed are in vitro methods for enhancing the growth of one or more probiotic microorganisms and methods of enhancing growth of a microorganism in a diagnostic test sample. Methods of inhibiting microbial activity are also disclosed. In one particular example, a method of inhibiting microbial activity includes selecting a medium that is susceptible to H1N1 influenza contamination; and contacting the medium with MSM at a concentration of about 10% to about 16% of weight by volume, thereby inhibiting H1N1 influenza microbial activity.



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