

**THE ANTIBACTERIAL ACTIVITIES AGAINST MASTITIS
PATHOGENS OF *CYCLAMEN MIRABILE* HILDEBR. TUBERS AND
ITS NON-ENZYMATIC ANTIOXIDANT ACTIVITIES**

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Mastitis reduces milk yield and alters milk composition. Antibiotics are widely used in the treatment of the disease. However, this widespread use of antibiotics causes both antibiotic residues in milks and antibiotic resistance developed in bacteria. Mastitis cases caused by antibiotic-resistant *Staphylococcus aureus* is both suffered more severely and contaminated milk and bacteria are spread to the other cattle and infected to human by either direct contact or by food chain. Today's researches are focused on discovering and using new antibiotics against bacteria. The aim of this work was to investigate the antibacterial effects of *Cyclamen mirabile* extracts against mastitis pathogens, and its antioxidant potentials. The extracts were screened for antibacterial activity against mastitis pathogens. The both of extract showed maximum inhibition zone against Coagulase-negative *staphylococci*-36 (CNS-36), and the zone was 12 mm. CNS-36 and CNS-37 showed the lowest sensitivity to *C. mirabile* ethanol extract (1625 µg/mL). In addition, the extracts were tested against the stable DPPH (2,2-diphenyl-1-picryl-hydrazyl-hydrate) free-radical for antioxidant activity. Trolox was chosen as a standard antioxidant. As a result, the ethanol extract displayed a strong antioxidant activity (Trolox equivalent= 2.26 mM). The extracts of *Cyclamen mirabile* have antibacterial, and antioxidant potential.

Keywords: Mastitis, *Cyclamen*, antibacterial, antioxidant

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