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Efficacy of Plant and Mushroom Based Bio-Products against the Red Poultry Mite, Dermanyssus gallinae (Mesostigmata: Dermanyssidae)

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Abstract : Poultry red mites (Dermanyssus gallinae De Geer) are economically deleterious parasite of hens in poultry industry in all over the world. Due to lack of proper control managements and result of poor application of commercial products, D. gallinae get resistance and severe infestation in poultry birds. Laboratory experiment was planned for the control of D. gallinae by using different mushroom and plant extracts. We used control treatment (100 ml distilled water) and nine treatments (10 gr Lentinula adobas, Ganoderma lucidum and Pleurotus aryngii with 100 ml methanol, 1% and 2% Neemazal, 1.5% Gamma-T-ol, Echinacea Leaf , 1.5% Fungatol with neem spray and Methanol) with five replication having five mites each. Data collected after 12 and 24 hours every day till mites found dead in every treatment. The significant differences among the mean values were compared with the DUNCAN multiple range test. The efficacy (%) of each treatment was determined with the Abbott formula. All statistical analyses were conducted with the SPSS Version 12 program. Lentinula edodes (80%), Ganoderma lucidum (76%) and Fungatol+Neem spray (1.5%) (80%) were significant against D. gallinae within 3 days.

Keywords : mushroom extracts, plant extracts, D. gallinae, control
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