

072**Development of broiler offal silage with molasses****N S B M Atapattu and N D C Sirisena**

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Objective of the present study was to determine the feasibility of ensiling broiler offal (BO) with molasses. Forty two-days old broiler chicks were slaughtered and processed manually. Offal without feathers were cut into small pieces and ensiled in airtight plastic containers for four weeks. The experiment followed a completely randomized design in 4*2 factorial arrangement. The treatment combinations were four molasses concentrations (5, 15, 25 and 35% w/w) and two inoculation levels (0 and 10%). Yoghurt was used as the inoculum. Each treatment combination had five replicates. pH was measured at time 0, 12hrs, 24 hrs, day 3, day 7, day 14, day 21 and day 28 of the ensiling process. pH was 4.8 at the beginning of the ensiling process. After 12 hrs, in all treatments pH dropped slightly to around 4.6. The pH at 5% molasses level dropped quickly within a day of ensiling, and was significantly lower than the pH values of other molasses levels. However, pH at 5% molasses rose thereafter, and reached to an undesirable level by day 3. By one week of ensiling, the pH at 15, 25 and 35% molasses levels were 4.1, 4.2 and 4.2, respectively. Those were the lowest pH values observed for the respective molasses concentration. At all of the above three molasses levels, there was a slight pH increase by day 14 of the ensiling. Thereafter pH maintained at a constant levels of 4.5, 4.2 and 4.4 at 15, 25 and 35% molasses levels, respectively. Except 5% molasses level, all other three levels of molasses gave typical odour of good silage. Liquefaction of the BO was poor and thus grinding of the offal before ensiling may be useful. Inoculation had no effect on pH until day 3 and, thereafter inoculation increased the pH and thus was detrimental for the ensiling process. It was concluded that BO could successfully be ensiled with 25% molasses. Inoculation with yoghurt culture had no beneficial effect on ensiling process.