

Influence of Fermentation Quality, Chemical Composition, & *In Vitro* Digestibility of Alfalfa Silage with Different Levels of Soil Contamination

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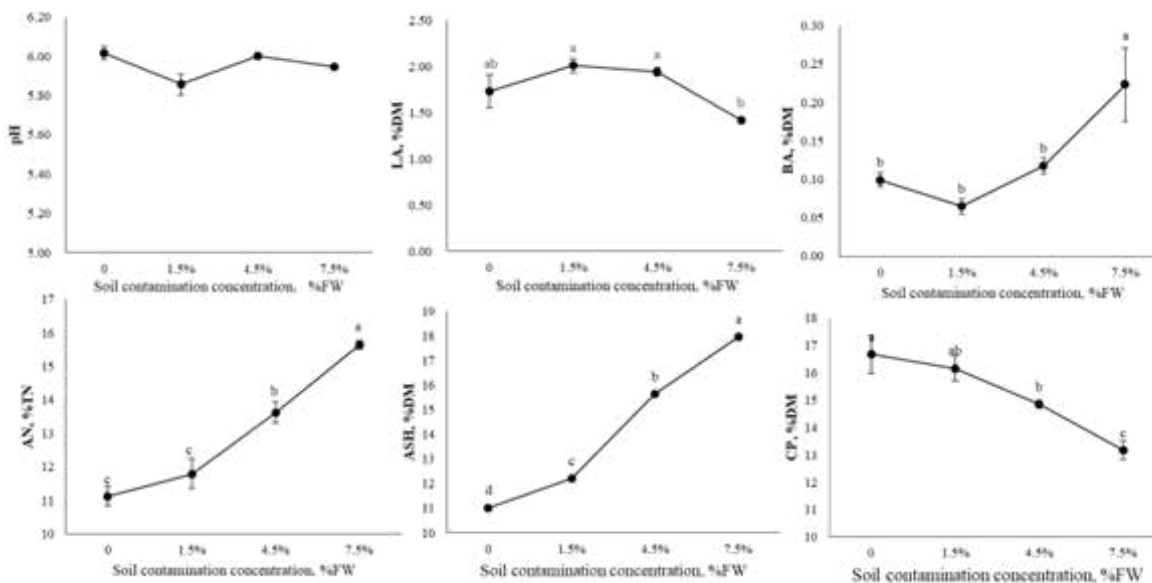
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The harvesting and drying of alfalfa can cause the soil contamination, which in turn affects the quality of alfalfa silage. There are few studies on the effects of soil contamination on alfalfa silage, so this paper set three different levels of soil contamination (mild, moderate and severe) to analyze the negative effects of soil contamination on alfalfa silage by studying the fermentation quality, chemical composition and *in vitro* dry matter digestibility. The main results are as follows: soil contamination can significant impact affect the quality of alfalfa silage, 1. The fermentation quality of alfalfa gradually decreases as the level of soil contamination increases. 2. The ASH increases with higher soil contamination levels. 3. Moderate soil contamination and heavy soil contamination could increase the decrease the CP of alfalfa silage; compared with uncontaminated soil, the IVDMD of alfalfa silage with heavy soil contamination decreased by 7.78%.

Table 1. Effect of different soil contamination levels on the *in vitro* dry matter digestibility of alfalfa silage

Items	Soil contamination concentration				SEM
	0	1.5%	4.5%	7.5%	
IVDMD	56.14 ^a	56.50 ^a	53.68 ^{ab}	51.77 ^b	0.69

Figure 1. Effects of different soil contamination levels on the fermentation quality and chemical composition of alfalfa silage



Note: Different lowercase letters table significant differences(P<0.05), no letter or the same letter differences are not significant (P>0.05).

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