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Sample preparation for the determination of steroids (corticoids and anabolics) in feed using LC

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Abstract-

An improved sample preparation procedure for the determination of 17 steroids (corticoids (CC) and androgenic anabolic steroids (AAS)), used potentially as growth promoters, in feed samples has been developed. This procedure is based on two reported LC-UV methods. The improved procedure includes a leaching process using ACN, saponification, and SPE using polymeric cartridges. The proposed method was validated according to the EU criteria established for quantitative screening methods in PFS. The extraction efficiencies, decision limits (CCalpha) and detection capabilities (CCbeta), for these compounds were in the ranges of 82-100\%, 19-40, and 24-53 microg/kg, respectively. The repeatability and the within-laboratory reproducibility at 1.0, 1.5, and 2.0 CCbeta levels were smaller than 10\%. Accuracy was in the 97-101\% range. The robustness was evaluated using the Youden robustness test. This method was applied to the analysis of steroids in different kinds of FS with satisfactory results.

Index Terms- Animal feed; Growth promoting agents; LC; Steroids;

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