The main advantages of the ELISA is a highly sensitive, high performance and a relatively low cost. Aflatoxin B1 concentrations were determined in medicinal plants *(Lini semina, Fructus rubi idaei, Sorbi Fructus, Asparagus officinalis)* by ELISA. Following results were obtained for different samples: for *Fructus rubi idaei* — *16,8–19,5* ppb, for *Sorbi Fructus* — *4,8–6,0* ppb, for powdered Asparagus roots — *0–3,0* ppb, in *Lini semina* aflatoxin B1 was not detected. Aflatoxin B1 concentration was exceed maximum residue limit (5 ppb) for 60% of tested samples.

PECULIARITIES OF VEHICLE SELECTION IN PRECLINICAL STUDY OF THE PLANT-BASED DRUGS

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Oral administration of drugs is the most common route that is explored in small molecule drug discovery. Because of the ease of delivery, a wider range of vehicles are available with this route of administration. However, the barriers that the oral route presents for systemic absorption of drugs make this a challenging task. A common approach in this case is to dose in a suspension vehicle containing a surfactant at a level greater than the critical micelle concentration. This approach offers multiple means for solubilisation and in cases in which the solubility is very low, at least the compound will be well dispersed as a suspension in the medium, due to the presence of vehicle. It is known that solubility decreases exponentially as the cosolvent is diluted in aqueous medium and precipitation in the gastrointestinal tract is highly likely for very insoluble compounds or plant extracts of complex composition.

The aim of the work was to evaluate the possibility of obtaining a suspension of the tablets with dry extract of *Pelargonium sidoides* DC roots for oral administration to animals by gavage.

The dry extract of *P. sidoides* contains of coumarins, hydrolyzable tannins and proanthocyanidins. Also the tablets include excipients such as microcrystalline cellulose, croscarmellose sodium, silicon dioxide and other components insoluble in water.

Suspensions are used as test formulations. Water, 1% starch solution and 1% methylcellulose solution were used for preparation of suspension of the tablets with Pelargonium. Tablets finely crushed and vehicle added in small portions and thoroughly mixed. The suspensions were tested in homogeneity, aggregation of sedimentation resistance, and permeability through a tube with a diameter of 1 mm (probe for intragastric administration to mice).

When water is used as a vehicle the formation of a dense precipitate of the drug on the bottom of the mortar was observed. Homogeneous suspension could not be obtained even by intensive dispersion. The heterogeneous system with the sediment couldn't pass through the probe. The suspension prepared using as a vehicle of 1% starch solution was a uniform, with high sedimentation stability and aggregation resistance during 4 hours. The suspension is well held by intragastric probe. The suspension prepared using as a vehicle solution of 1% methylcellulose has poor permeability by gavage (Table 1).

1% starch solution is the best of the tested vehicle. It can be recommended as a vehicle for suspension preparation for plant-based drugs to gavage to animals.

Table 1. Physicochemical characterisation of the formulations

Vehicle	Dissolution of active substance	Suspension stability	Permeability suspension by gavage
Purified water	±	–	–
1% starch	±	+	+
1% methylcellulose	±	+	–