

POSTER PRESENTATIONS

QUANTITATIVE DETERMINATION OF POLYSACCHARIDES AND PHENOLIC COMPOUNDS IN THE "TRIBURENAL" SUBSTANCE DERIVED FROM *Tribulus terrestris*

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At the Institute of Chemistry of Plant Substances, the hypoazotemic agent Triburenal was developed based on biologically active compounds isolated from the meal of *Tribulus terrestris* remaining after five successive extractions with 70% ethanol. The preparation has been shown to exhibit pronounced hypoazotemic activity by reducing polyuria, improving renal function and protein metabolism, and inhibiting lipid peroxidation.

The introduction of the drug into industrial production requires the development of regulatory and technical documentation to ensure standardization, quality control, and compliance with pharmacopeial requirements and Good Manufacturing Practice guidelines. At present, this documentation is under development, including the establishment of qualitative and quantitative analytical methods for the Triburenal substance.

The total phenolic content, expressed as gallic acid equivalents, was determined as follows. A weighed portion of the plant material was extracted with ethanol or a hydroethanolic solution under continuous stirring or heating. The resulting extract was then filtered. An aliquot of the filtrate was mixed with the Folin–Ciocalteu reagent, followed by the addition of sodium carbonate solution to provide an alkaline medium and facilitate color development. The reaction mixture was thoroughly mixed and allowed to stand at room temperature for 30–60 minutes. The absorbance of the resulting solution was measured at 760 nm using a spectrophotometer against an appropriate blank. The total phenolic content was calculated from a calibration curve constructed using standard gallic acid solutions and expressed as a percentage.

The obtained results are presented in Table 1.

Table 1

Parameter	Batch 1	Batch 2	Batch 3	Batch 4
Polysaccharide content, %	33.05	31.50	31.67	32.45
Total phenolic content (expressed as gallic acid equivalents), %	25.45	25.85	23.98	24.78

The quantitative analysis demonstrated that the polysaccharide content in the Triburenal substance ranged from 31.50% to 33.05%, while the total phenolic content ranged from 23.98% to 25.85%. These findings indicate the compositional consistency of the investigated batches and confirm the high content of biologically active compounds in the Triburenal substance.