

Fritillaria (Bulbus Fritillaria) Advisory

March 29, 2024

Peimine and peiminine are isosteroidal alkaloids and the major biological active constituents derived from the Bulbus Fritillaria plant (*Fritillaria ussuriensis* and *Fritillaria thunbergia*). These Fritillaria alkaloids are reported to have anti-inflammatory, expectorant, antitussive, and other anti-tumor, antioxidant, and sedative pharmacological effects. There are no FDA-approved Fritillaria-containing products. To the extent that Bulbus Fritillaria containing products exist, they are manufactured absent regulatory oversight – with unknown safety, efficacy, stability, and purity. Fritillaria alkaloids are assigned a 4/B classification in the Association of Racing Commissioners International's Uniform Classification (ARCI) of Foreign Substances, consistent with other substances with similar pharmacological activity lacking FDA approval. The detection of Fritillaria alkaloids in the post-race sample can result in a horse's disqualification, a fine, and suspension for the trainer.

Bulbus Fritillaria containing products are marketed in a variety of over-the-counter herbal formulations claiming to support respiratory function, cardiovascular, and muscular performance. Equine supplements and products known to contain Bulbus Fritillaria as an ingredient include but are not limited to the following: Open Air (Peak Performance Nutrients), Power Pak Nitro (Peak Performance Nutrients) and Respi-Free (Omega Alpha). The concentration of fritillaria can be highly variable from one product to the next, as well as from batch to batch for a single product. Additionally, the amount of fritillaria may differ substantially from that declared on the label contents. For these reasons, there is no reliable withdrawal guidance for the use of these products.

Further, there may be other products containing this substance of which labels may not clearly indicate the presence of Bulbus Fritillaria but simply refer to a 'proprietary blend of herbs' so the end-user may not be unaware that the product contains a prohibited substance.

Horsemen are advised to exercise caution in using these products in proximity to a race. Should a veterinarian determine treatment with fritillaria containing products is warranted for a specific patient, clearance testing is recommended.

For more information on Fritillaria, contact the RMTC at: contactus@rmtcnet.com. Find this and other [RMTC Advisories & Bulletins on our website](#).