Background to the study

The consumption of turmeric supplements is increasingly popular and is reported to provide numerous health benefits including antioxidant, analgesic, anti-inflammatory, antiseptic, anticarcinogenic, chemopreventive, chemotherapeutic, antiviral, antibacterial, antifungal and antiplatelet activities [1]. However, in recent months there has been a number of reports of hepatotoxicity linked to the consumption of these supplements. Such reports and scientific publications led to a review of the safety of turmeric and curcumin by the UK Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment (COT). The statement issued by COT in November 2019 concluded "Given past reported contamination issues with turmeric supplements, the Committee concluded that there would be value in commissioning a chemical analysis of turmeric supplements and raw/powdered turmeric available on the UK market". To address this conclusion the FSA requested Fera to:

- develop and validate in-house method(s) for measuring curcumin in turmeric containing supplements, ground/powdered turmeric and raw/fresh turmeric
- develop and validate in-house a method for measuring piperine in turmeric containing supplements
- purchase turmeric containing supplements (n=15), ground/powdered turmeric (n=10) and raw/fresh turmeric (n=5) from a mixture of local outlets and over the internet
- analyse all 30 samples for trace elements and curcumin
- analyse all supplement samples for piperine content.