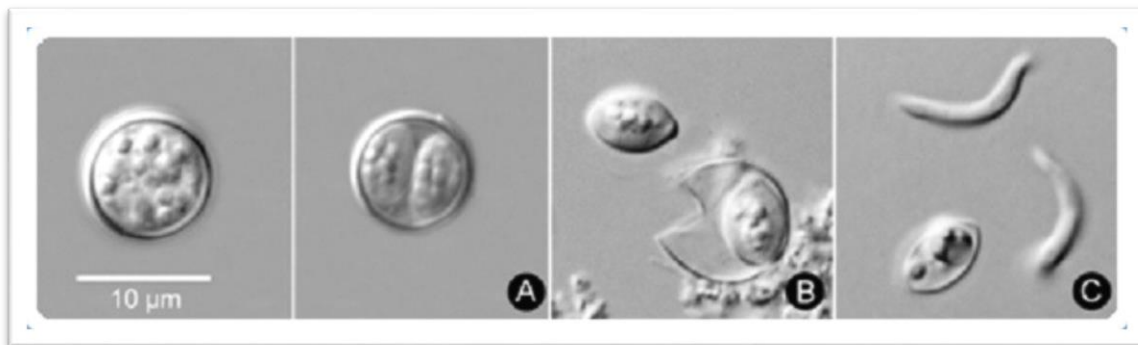


What is *Cyclospora cayetanensis*?

Cyclospora cayetanensis is a single celled eukaryote that causes severe gastroenteritis when ingested. It is most common in tropical regions, but since 1990 cases of cyclosporiasis have begun occurring in the United States, and since 2013 multi-state outbreaks have increased in frequency. Just last week, [the New York Times reported that over 100 people had been infected by *Cyclospora* after consuming tainted lettuce](#) and earlier this month [over 200 were exposed to the parasite by assorted vegetable trays](#). In nearly half of the 33 confirmed *Cyclospora* outbreaks reported by the Centers for Disease Control and Prevention between 2000 and 2016, [agricultural products were determined to have been the route of infection](#).



The above image is from [the CDC](#), and shows the contaminating spores on the left becoming the infective parasites on the right. The spores are extremely robust and can persist for long periods of time in water and on surfaces. In fact, the immature spores that are shed in the feces of infected individuals require an incubation, generally in water, for about two weeks before becoming mature and infective. The spores, or oocysts, of *Cyclospora cayetanensis* shown above cannot be cultured and microscopic analysis lacks the sensitivity and specificity to distinguish benign species from

infectious ones. One major problem with *Cyclospora* is that it is both difficult to detect and to distinguish.

What can be done to reliably detect *Cyclospora cayetanensis*?

At [Exact Scientific Services](#) we have implemented a molecular detection method [developed and validated by the U.S. Food and Drug Administration](#) to detect *Cyclospora cayetanensis*. This molecular detection method relies on a technique called quantitative polymerase chain reaction (qPCR), which uses fluorescently-tagged DNA probes to detect extremely small amounts of genetic material with very high specificity. We are an ISO accredited testing laboratory, and we have a dedicated molecular biology department that is highly experienced using qPCR as an analytical technique. In addition to this screening service, [we also offer DNA sequencing services to produce unambiguous species identification of nearly any organism](#). So not only can we help you screen your products and materials for *Cyclospora cayetanensis*, we offer unambiguous verification of positives using cutting-edge next generation DNA sequencing. [Contact us to discuss sample requirements](#).

What products should be tested for *Cyclospora cayetanensis*?

There is no comprehensive list of agricultural products that need to be tested for *Cyclospora cayetanensis*, but [the CDC does provide a summary table with all the products that have been identified as the source of outbreaks since 2000](#).