



Risks presented in Apricots

Aflatoxins and Ochratoxins:

Apricots are among the fruits that are at risk for mycotoxins, particularly aflatoxins and ochratoxin A. Ochratoxin A can develop in tree and vine fruit, although it has been more frequently found in figs than other fruits.

Aflatoxins are a group of ~ 20 toxins produced by the fungi *Aspergillus flavus*, *Aspergillus parasiticus* and *Aspergillus nomius*. The most relevant toxins present in dried fruits and nuts are B1, B2, G1 and G2. The difference between them apart of the chemical structure is the level of toxicity they present.

Although it is not possible to see aflatoxin itself with the naked eye, it is possible to spot some of the defects that could indicate the presence of toxins, such as damaged tissue caused by the fungus. Due to this, it is difficult to determine the presence of aflatoxin without doing microbiological testing. It can be detected through tests using methods like the HPLC technique. At the same time aflatoxin can also be detected under a UV light at the factory.

For the fungus to grow in the different fruits and nuts it needs to have favourable growing conditions. This means a hot temperature, relative humidity > 70% and low water activity (<0.7). By controlling these conditions, the growth of the fungus and production of the toxins can be restricted.

Microbiological risk:

The risk of microbiological issues with apricots (as well as aflatoxins and mycotoxins) can be reduced by the pre-treatment given to the fruit before drying. As mentioned in our [Apricots: Harvesting and Processing](#), the apricots undergo an SO₂ treatment (or in some cases, blanching). This can help to weaken the microbiological threats, which can then be further weakened or decreased during the heating/drying phase.

Foreign bodies:

The most common foreign bodies that can be found in the finished product are as follows:

Pit fragments:

Since apricots are categorized as a stone fruit, the pit is encased in a very hard shell. Pieces of pit can make their way into the finished product. This is because the pit can adhere to the fruit and become embedded in the fruit, disguising it from the foreign body detectors. It can also be of similar colour to the apricot itself and it is possible that the

colour sorters can miss these. It is important to do a foreign body check for pits, as the pits are very hard and can cause damage to teeth if bitten into.

Extraneous Vegetable Matter:

It is possible that small pieces of leaves or twigs can find their way into the finished product. Although the product goes through foreign body checks, such as colour sorters, metal detectors and x-rays, which are effective in catching and removing any foreign bodies, it is still possible to find some foreign vegetable matter in the finished product.

As with all products processed with factory workers it is also possible to find foreign bodies in the finished product, however, do to finished product checks, the risk of this can be minimized.

Resources

- <https://books.google.co.uk/books?id=Vu8gsgLeW-YC&pg=PA279&dq=apricot+harvesting+in+turkey&hl=en&sa=X&ei=kAuVVZv1NMHd7>
- <https://books.google.co.uk/books?id=XjTWjyKzLUYC&pg=RA1-PT431&dq=ochratoxin+in+apricots&hl=en&sa=X&ei=YiGVVZaKDcObsAH5-nWkHl4C&pg=PA133&dq=ochratoxin+in+apricots&hl=en&sa=X&ei=YiGVVZaKDcObsAH5->
- <https://books.google.co.uk/books?id=ySRh-nWkHl4C&pg=PA133&dq=ochratoxin+in+apricots&hl=en&sa=X&ei=YiGVVZaKDcObsAH5->