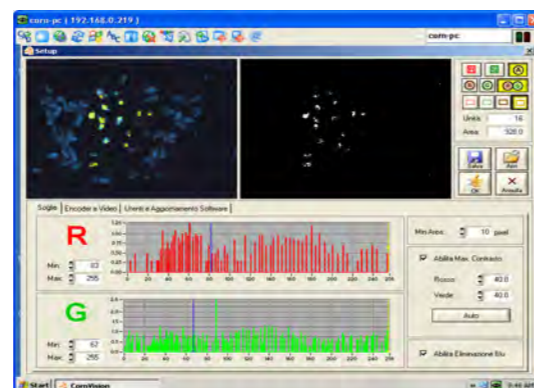


NEW Automated Analyser for Aflatoxin in Maize

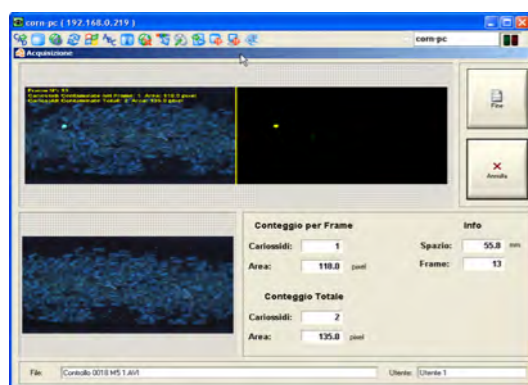
The software provides via separate passwords both Administrator and User access. The administrator is able to modify the image acquisition management system, which counts the number of contaminated maize grains. Each user can operate the AFLAFLESH with an individual password that enable full traceability of the results.

The left side of the screen shows the view of the sample captured by the digital camera. The right side of the screen shows the contaminated grains to be counted by the software.

The software allows the intervals of the red and green light intensity to be selected for the detection of Aflatoxin B₁



These are typical images during a routine analysis. The lower left image shows in real time the maize passing along the conveyor. The upper left image shows a fluorescent maize grain. Whilst the right hand screen shows that the single fluorescent maize grain has been isolated and counted.



The software stores the analysis results and can also generate a report of the results. The report contains information entered by the User at the start of the test, together with date /time and the final result of the analysis. The result is expressed in ppb of Aflatoxin B₁ present and classified according to the values for the maize's permitted use in feeds.

AFLAFLESH

- NO SAMPLE PREPARATION
- NO REAGENTS
- EASY TO USE
- FAST ANALYSIS (10min 5Kg Maize)
- NON DESTRUCTIVE
- AUTOMATED
- CALIBRATED

0 – 5 ppb	Any use
5 – 10 ppb	Animal feed but not for milk production
10– 20 ppb	Pigs and Poultry
> 20 ppb	Quarantine and destroy

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Aflatoxins are very toxic and among the most carcinogenic substances affecting both man and animals.

Aflatoxins are produced by certain moulds that easily colonize and infect all types of cereals, oilseeds, spices and nuts.

Aflatoxin contamination of crops can occur even before harvest and at any time during transportation, storage and processing.

As such there are strict regulatory limits for aflatoxins for any grains and commodities intended for use as food and animal feeds. Testing is mandatory and results are used to segregate or isolate cereals and grains contaminated with aflatoxin.

Current test methods for aflatoxins in the Agro Feed Industries are difficult.

- Require skilled operators
- Involve complex sample preparation and procedures

have major disadvantages

- Small sample sizes are not representative
- Long test times to results

are costly

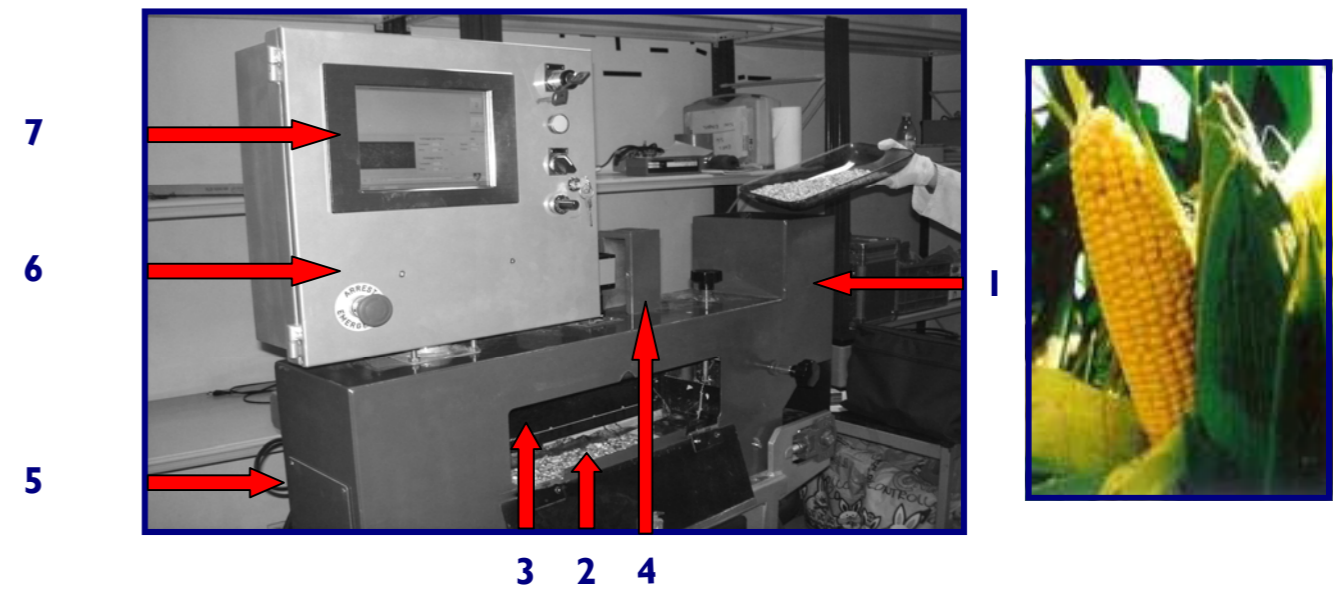
- Destructive tests
- Expensive equipment and reagents



That is until now...

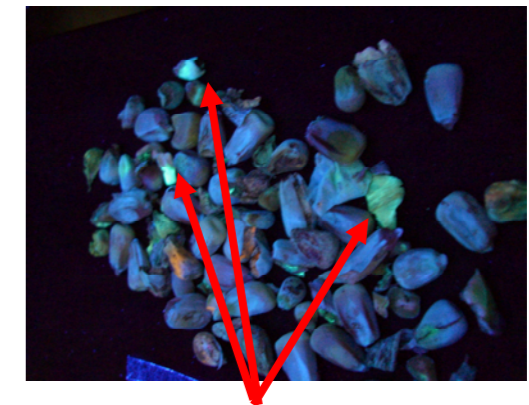


AFLAFLESH the Analyser



AFLAFLESH Components

1. **Sample hopper**
2. **Sample conveyor**
3. **UV light source**
4. **High resolution digital camera**
5. **Encoder for data management**
6. **Built in PC**
7. **LCD touch screen monitor**



Fluorescence from aflatoxin contaminated maize cobs

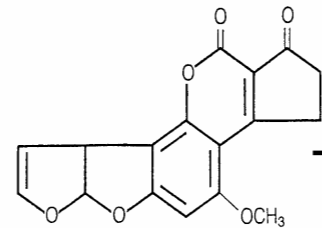
Analyzing maize with the AFLAFLESH instrument could not be easier. Simply pour up to 5 Kg of maize without any preparation or treatment into the sample hopper. From here the sample is transported along the conveyor where it is illuminated with a UV lamp.

Maize cobs contaminated with aflatoxins emit yellow/green fluorescence. The emitted fluorescence is recorded by a high-resolution digital camera and stored by the encoder. An onboard PC processes the data using built in calibration curves produced by comparison of more than 150 HPLC analysis. The images and data for the last 50 analyses are stored on CD or hard disc.

At the end of the process the software produces a report analysis providing date, supplier and results. Results are expressed in ppb. The measured samples are unaffected by the analysis as the test is non-destructive.

AFLAFLESH is a new instrument designed specifically for the needs of the Agro Feed Industry.

AFLAFLESH provides automatic screening of maize and broken maize for Aflatoxin B₁ the most toxic of the aflatoxins



Without the difficulties

- **Easy and Simple to operate**
- **No sample preparation**

Without the disadvantages

- **Large sample size, up to 5 Kg**
- **Reduced test time**

Without the costs

- **Non destructive test**
- **No reagents or consumables**