

Managing chemical hazards in fruit and berry production and harvesting

PROGRESS regional training webinar

**“Strengthening the capacity of fruit and berry producers in the
Eastern Partnership (EaP) to access the EU market”**

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Francesco Sbrana, Environmental Chemist, Regional Agency for
Environmental Protection of Tuscany (ARPAT), Italy



OUTLINE



PROGRESS

Promoting Green Deal Readiness in
the Eastern Partnership Countries

WHY COMPLIANCE MATTERS

Compliance supports safe trade and market access



SAFE FOOD.
STRONG MARKETS.
SUSTAINABLE FUTURE.

1

PRODUCTION

Safe production practices



2

EXPORT & COMPLIANCE

Compliance verification



3

EU MARKET ACCESS

Trusted market access



Health
protection



Economic
sustainability



Environmental
sustainability



Climate
resilience



Compliance supports safe production, environmental sustainability
and sustainable market access



EU REQUIREMENTS FOR CHEMICAL CONTAMINANTS IN FRESH FRUITS AND BERRIES

Key elements supporting safe market access to the European Union



Compliance starts with **prevention** and continues throughout the **supply chain**.



WHAT ARE CHEMICAL CONTAMINANTS?



Intentionally added



Functional
purpose



Regulated
use

Key
distinction



Not intentionally added



Environment



Water



Air



Handling



Chemical contaminants may enter food **unintentionally**.



ENVIRONMENTAL DRIVERS OF CONTAMINANT UPTAKE

Environmental conditions influence contaminant availability and transfer to fruits and berries



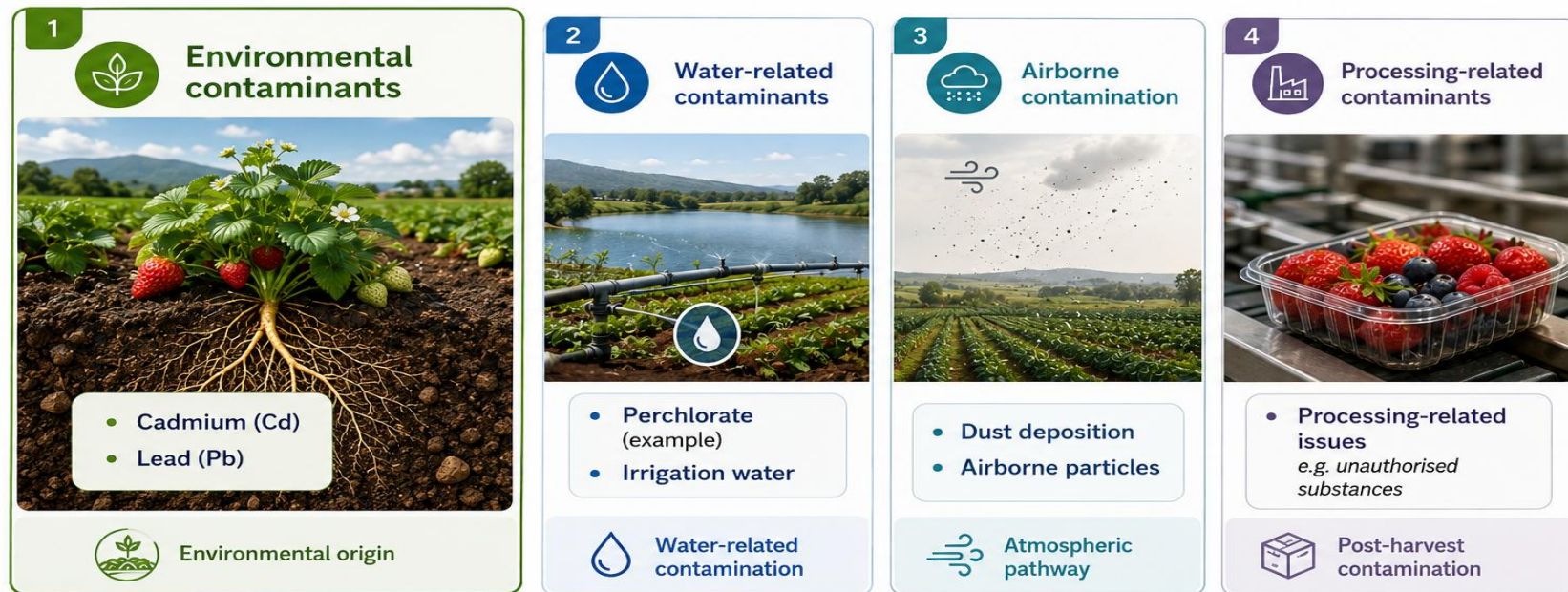
Environmental conditions influence contaminant uptake and accumulation.





CHEMICAL CONTAMINANTS: DIFFERENT SOURCES, DIFFERENT RISKS

Understanding the main categories of contaminants relevant to fruits and berries



Different contaminant sources require different prevention approaches.



WHY PERSISTENT CONTAMINANTS MATTER

Environmental contaminants in fruits and berries: persistent, accumulated and not removed after harvest



PERSISTENT



Soil persistence

Contaminants can remain in soil for many years.



Long-term accumulation

Repeated uptake can lead to accumulation in plants over time.



NOT REMOVABLE AFTER HARVEST



Inside fruit tissue

Contaminants can be present within the fruit.



Once absorbed by the plant

Uptake through roots makes removal impossible.



Washing not sufficient

Standard washing does not remove internal contaminants.



Site selection

Choose appropriate sites with lower contaminant risk.



Monitoring

Regular monitoring of soil, water and crops to detect and manage risks.



Good agricultural practices

Implement best practices to minimise uptake.



Environmental contaminants must be prevented before harvest.



HOW CLIMATE VARIABILITY INFLUENCES CONTAMINATION RISKS

Climate-related factors can affect contaminant mobility, availability and exposure in fruit and berry production



METAL CONTAMINATION CASE STUDIES RELEVANT TO EAP PRIORITY CROPS

Scientific evidence and environmental risk patterns in fruits and berries

1 BLUEBERRIES



Soil-to-berry transfer

Scientific studies show that cadmium uptake may occur from contaminated soils and irrigation water, influencing fruit quality and food safety.



KEY MESSAGE

Soil conditions matter

2 RASPBERRIES AND STRAWBERRIES



Variable metal uptake

Cadmium and lead levels may vary according to soil characteristics, irrigation water and local environmental conditions.



KEY MESSAGE

Environmental conditions
influence uptake

3 APPLES, STONE FRUITS, APRICOTS AND POMEGRANATES



Location-specific risk

Lead, cadmium and arsenic occurrence depends largely on local environmental conditions and site history.



KEY MESSAGE

Risk depends on site selection

WHAT DO THESE EXAMPLES SHOW?



Different crops
accumulate contaminants
differently.



Local environmental
conditions matter.



Monitoring should
be risk-based.



Risk-based monitoring should reflect the crop, production area and local environmental conditions.



ENVIRONMENTAL RISK MANAGEMENT STRATEGIES

Practical actions for growers and producer groups



Start with the right
production area.



Understand your soil
and water.



Work together, share
and strengthen.



Adapt and improve
continuously.



Better protection,
sustainable future.

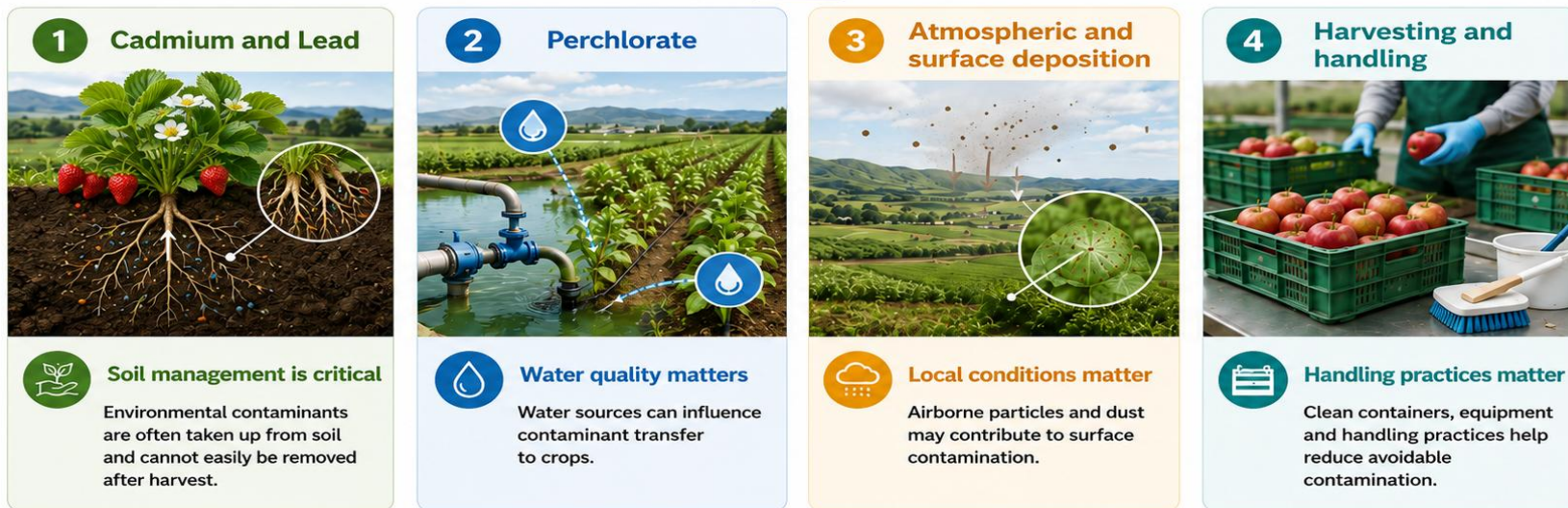


Prevention is more effective than correction after harvest.



DIFFERENT CONTAMINANTS REQUIRE DIFFERENT APPROACHES

Understanding where prevention is most effective



→ Different contamination sources require different prevention strategies. →



RISK-BASED PREVENTION

Focus controls where contamination is most likely to occur.



Effective prevention starts by understanding how contamination occurs.

PRACTICAL OPTIONS FOR SMALLHOLDERS AND PRODUCER GROUPS

Making risk management more accessible and affordable



Collaboration helps smallholders access knowledge, monitoring and technical expertise.



RISK INDICATORS FOR GROWERS

When should additional assessment be considered?



KEY PRINCIPLE

Not all farms face the same risks.



Monitoring should reflect
local environmental conditions.



Risk-based monitoring focuses **resources** where they are **most needed**.



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Promoting Green Deal Readiness in
the Eastern Partnership Countries

FROM AWARENESS TO ACTION

*Practical implementation
for growers and producer groups*



Everything we discussed is
important to move towards
**SAFER PRODUCTS AND
SUSTAINABLE MARKET ACCESS.**



Safe market access is supported by
**compliance, preventive risk management
and good agricultural practices.**



FURTHER INFORMATION AND RESOURCES

Practical resources to support compliance and implementation



1. MANDATORY REQUIREMENTS



Regulation (EU) 2023/915

Maximum levels for contaminants in food

[Regulation on Eurlex](#)



Regulation (EU) 2017/625

Official controls across the food chain

[Regulation on Eurlex](#)



European Commission – Food Contaminants

Information on contaminants and
EU food safety requirements

[EC Info page](#)



2. PRACTICAL IMPLEMENTATION RESOURCES



GLOBALG.A.P. Produce Safety Assurance (PSA)

Risk assessment, soil and water management,
preventive controls

[GlobalGAP PSA](#)



GLOBALG.A.P. Integrated Farm Assurance (IFA)

Good agricultural practices and
farm management

[GlobalGAP IFA](#)



California Blueberry GAP Manual

Blueberry production practices

[Blueberry council GAP](#)



Berry Good Practice Guide

Grower cooperation and resilience

[Berry Australia GAP](#)



COMPLIANCE



PREVENTIVE RISK
MANAGEMENT



GOOD AGRICULTURAL
PRACTICES