PREVENTING AND MANAGING OBSOLETE PESTICIDES

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Obsolete Pesticides Are a Costly Problem!











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Prevention is the priority; legacy stocks require specialist action

1 PREVENT

Avoid unnecessary use. Procure realistic quantities. Monitor stocks and expiry.

2 ACT EARLY

Detect slow-moving, damaged, expired or cancelled products before the problem grows.

3 MANAGE LEGACY

Inventory, prioritize, safeguard and arrange environmentally sound management.

Do not create a future disposal liability on the assumption that funding will be available later.

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Prevent accumulation at every stage of the pesticide life cycle

1

IPM & need

Confirm whether pesticide use is necessary

2

Selection

Registered, effective and lower-risk option

3

Procurement

Realistic quantity, shelf life and phased delivery

4

Storage

Secure facilities, live inventory and FEFO

5

End-of-life

Containers, residues and unused products managed

Prevention is continuous management across the full pesticide life cycle, not a one-off stock-control exercise.

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Common causes are often preventable governance and management failures

Planning

Over-estimation, delayed activities, weak needs assessment

Procurement

Excess quantities, unsuitable products or short shelf life

Regulation

Bans or cancellations without transition plans

Operations

Poor storage, weak records, lost labels or deterioration

Inspection and compliance systems can detect these weaknesses before chemicals become hazardous waste.

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When is a pesticide obsolete or no longer suitable for use?

LEGAL

Banned, cancelled, seized, sampled or no longer authorized

TECHNICAL

Deteriorated, ineffective or physically changed

IDENTITY

Unidentified, contaminated or lacking reliable labels

NEED

Usable product that is no longer required

Legal status, identity, condition and justified use all matter. Appearance alone is not enough.

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Immediate priorities at sites with existing stocks

SAFETY FIRST

- restrict access and prevent exposure
- do not open, sample or move unknown products casually
- record visible labels, quantities, packaging and leakage safely
- identify nearby people, water, livestock and other receptors
- use trained personnel for stabilization or overpacking

Do not improvise disposal

Burning, burial and uncontrolled dumping can spread contamination and create additional health, environmental and legal risks.

Detailed technical decisions follow only after immediate risks are controlled.

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What sites with existing stocks often look like….







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Move from immediate safety to verified completion

1. Secure site
2. Inventory
3. Assess risk
4. Safeguard
5. Transport & treat
6. Follow up

Risk ranking considers more than quantity

toxicity • leakage • storage condition • proximity to people and sensitive environments • fire, flood and unauthorized-access risks

Where contamination has occurred, site assessment, remediation and monitoring may continue after stock removal.

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Good data determines the safety, sequence and cost of the response

WHAT?	Identity, formulation and regulatory status
HOW MUCH?	Quantity and contaminated materials
CONDITION?	Product, container and storage integrity
WHERE & WHO?	Location, ownership and responsibility
WHAT RISK?	Exposure pathways and sensitive receptors

Inventory outputs support:

- risk ranking and urgent action
- packaging and safeguarding specifications
- transport and treatment planning
- budgets and funding proposals
- tracking through to documented completion

Uncertainty in the inventory becomes uncertainty and cost at every later stage.

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More than two decades of national action and international support

2008–2013

3,500 t eliminated

GEF, World Bank, UNEP, NATO, Czech cooperation and national action

2015–2017

360.5 t safeguarded and disposed

EU-financed regional project implemented by FAO; Pascani priority site

2018

60 t reported eliminated

NATO Partnership for Peace support

2019–2022

460.3 t removed and disposed

Transnistrian region under the OSCE Mission to Moldova

Reported total eliminated: 4,420.3 tonnes. Several projects grouped together for 2008–2013 and the figures shown here do not assign separate tonnages to each partner.

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Pascani Village, district of Criuleni, Moldova, 2016. Packaging and elimination of Obsolete pesticides



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Latest verified national inventory found: 31 December 2021

211.4074 t unusable or expired plant protection products and fertilizers across 19 entries

48.15 t reported as unknown substances

- the inventory includes both plant-protection products and fertilizers
- some entries were open, unguarded or without packaging
- about 50 tonnes required classification as unknown substances with high potential for POPs content
- Cișmichioi remains a monitored burial site: historical waste and contaminated soil were isolated rather than removed

Caution: this is the latest quantified national inventory located in the supplied sources, not a verified 2026 total

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Manage the legacy while stopping the next stockpile from forming

LEGACY LOOP

Secure sites

Validate the inventory

Prioritize and safeguard

Arrange compliant treatment or disposal

Assess contaminated sites

PREVENTION LOOP

IPM and justified use

Right product and quantity

Live inventory and FEFO

Routine inspection and early action

Documented end-of-life pathways

The loops meet in governance, records, inspection, accountability and continuous monitoring.

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Prevention first. Safe action on legacy stocks. One accountable system.

1

PREVENT

Use IPM, procure responsibly and track every stock.

2

PRIORITIZE

Use inventory and risk assessment to direct action.

3

COMPLETE

Safeguard, manage and document through final closure.

The safest, least costly obsolete pesticide is the one that is never created.

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FAO RESOURCES

Select any title to open the resource

ENVIRONMENTAL MANAGEMENT TOOL KIT

Empty-container guidance

EMTK Volume 1 | Series 12

EMTK Volume 2 | Series 13

Preparation of Inventories | Series 14

EMTK Volume 3 | Series 15

EMTK Volume 4 | Series 16

EMTK Volume 5 | Series 17

EMTK Volume 6 | Series 18

Rapid Environmental Assessment handbook

OTHER OBSOLETE-PESTICIDE TOOLS

Inventory-taking training manual

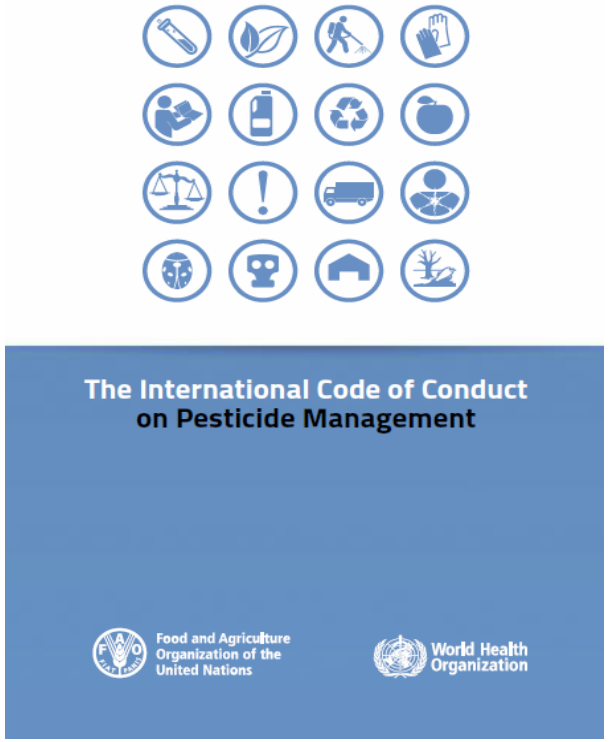
Small quantities guidance [1999]

Bulk disposal guidance [1996]

Prevention of accumulation [1995]

Storage and stock control manual

Open FAO waste-management page



International Code of Conduct

FAO's Approach

- Prevent accumulation
- Manage containers
- Prepare inventories
- Prioritize sites
- Safeguard stocks
- Plan sound disposal
- Manage contaminated land

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Thank you