



# Working definitions

GENETICALLY MODIFIED (GM) CROPS, LOW LEVEL PRESENCE (LLP) AND ADVENTITIOUS PRESENCE (AP)

# The issue of definitions

- In the area of food safety, FAO uses technical terms and acronyms that are generally applied in various Codex documents
- The definitions of many terms and acronyms often differ among countries
- Translations in various languages: may increase the confusion associated with the terms and acronyms
- Pragmatic solution is necessary for using terms that do not have internationally harmonized definitions





# Working definition 1: Genetically Modified (GM) Crops

- In this meeting, a GM Crop refers to:
  - A recombinant-deoxyribonucleic acid (r-DNA) plant. An r-DNA plant is a plant in which the genetic material has been changed through *in vitro* nucleic acid techniques, including r-DNA injection and direct injection of nucleic acid into cells or organelles.
- In the context of trade issues, “crops” often mean “commodities” (maize, soy, rice, etc).
- In some countries, the term, Genetically Engineered (GE) crop, is used.
- This is not an official FAO definition.
- This term is used in the background papers as well as during the meeting in an attempt to minimize possible misunderstanding.

# **Working definition 2: Low Level Presence (LLP)**

**Let us see various definitions...**

# Codex Alimentarius

“**Low levels** of recombinant DNA plant materials that have passed a food safety assessment according to the Codex Guideline for the conduct of Food Safety Assessment of Foods Derived from Recombinant-DNA Plants (CAC/GL 45-2003) (Codex Plant Guideline) in **one or more countries** that may on occasion be present in food in importing countries in which the food safety of the relevant recombinant-DNA plants has not been determined.”

## Working definition of LLP (for this meeting):

- LLP refers to the detection of low levels of GM crops that have been approved in at least one country on the basis of a food safety assessment according to the relevant Codex guidelines.
- The audience should note that the low level presence (LLP) is not specifically defined by Codex, however in the context of the Codex guidelines it is referred to as LLP.
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# OECD

“For the purposes of this document, a low level presence (LLP) situation is one where seed or commodities that can function biologically as seed occasionally contain **low levels** of recombinant DNA plant materials that have been reviewed for environmental risk/safety in **one or more countries** and are present in seed in importing countries in which the environmental risk/safety of the relevant recombinant-DNA plants has not been determined”

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# USA

“The **low-level** mixing of genes and gene products from unintended plant sources. This can occur with both conventionally bred plants as well as biotechnology-derived plants. These occurrences can result from natural process such as the movement of seeds or pollen, or human-mediated processes associated with field testing, plant breeding, or seed production”

[http://www.aphis.usda.gov/publications/biotechnology/content/printable\\_version/fs\\_llppolicy3-2007.pdf](http://www.aphis.usda.gov/publications/biotechnology/content/printable_version/fs_llppolicy3-2007.pdf)

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# European Union

**“Traces of genetically modified organisms (GMOs) in imports of feed materials from third countries not covered by EU authorizations.”**

<http://europa.eu/rapid/pressReleasesAction.do?reference=MEMO/11/451>

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# Canada

“The term Low Level Presence (LLP) refers to the unintended presence, at **low levels**, of a genetically modified crop that is authorized for commercial use or sale in **one or more countries** but is not yet authorized in an importing country.”

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# Industry (CropLife Intl)

“Low level presence (LLP) refers to **incidental presence** of GM material in food, feed or grain at **levels that are consistent with generally accepted agricultural and manufacturing**”

[http://www.croplife.org/low\\_level\\_presence](http://www.croplife.org/low_level_presence)

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# An academic definition

“The term Low Level Presence or LLP has been adopted to describe the **accidental** presence of **small amounts** of biotech events that have undergone full safety assessment and have receive regulatory approval for all possible uses in **one or more countries** but are still unauthorized in other due do regulatory asynchronicity or expiration of their approvals”

(Kalaitzandonakes, 2011)

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# Working definition 2: Low Level Presence (LLP)

- So in this meeting, LLP refers to:
  - The detection of low levels of GM crops that have been approved in at least one country.
  - Approval is on the basis of a food safety assessment according to the relevant Codex guidelines.
- LLP is not specifically defined by Codex, however in the context of the Codex guidelines, it is referred to as LLP.
- There is no international agreement defining or quantifying “low level”, therefore the interpretation varies from country to country.
- In many countries it is interpreted as any level at which detection is possible i.e. very low trace levels while in other countries case-by-case decisions are taken on what level is acceptable.

# Working definition 3: Adventitious Presence (AP)

- In this meeting, AP refers to:
  - Detection of the unintentional presence of GM crops that have not been approved in any countries.
- In all countries with GMO policies and regulations, AP is clearly an unlawful event.
- Once again, there is no international agreement defining or quantifying any levels of AP.
- However since any AP is unlawful in almost all countries, any levels of detection of AP, even the lowest molecular level, could create a problem.
- Therefore, it is a common understanding between countries that AP should not occur.