

## BIOTECHNOLOGIES EN AGRONOMIE A DES FINS ALIMENTAIRES



2020-2021/2022, Master Professionnel

### Chapitre 3

## Les plantes biotech au service de l'alimentation

## 1) Introduction

### Pourquoi améliorer les plantes?

La sélection végétale est le processus par lequel les humains modifient les caractéristiques des plantes au fil du temps pour en faire une nourriture plus abondante et de meilleure qualité.



فن وعلم تغيير شكل أو أداء  
النبات لصالح البشرية

"The art and science of changing plant form and/or performance for the benefit of humankind"

Il est possible de créer des plantes possédant des caractères spécifiques tels que :

- la tolérance aux herbicides,
- la résistance aux parasites et aux maladies,
- la tolérance à la sécheresse,
- un rendement potentiel plus élevé
- et de nombreuses autres caractéristiques.



Un exemple est celui des nouvelles variétés modernes de tomates. Elles sont plus dures, plus rouges, faciles à cultiver et sont vendues moins chères. En plus, elles sont plus faciles à conserver et durent plus longtemps.



- Possibilité pour le maximum de pays de cultiver de la tomate et d'en avoir toute l'année.
- Avantage non négligeable pour les populations dans les pays pauvres et les populations nomades de l'Asie.

### Quel est l'apport de la biotechnologie?

Le processus de l'amélioration se base sur le principe de l'exploitation délibérée de la sélection artificielle pour produire les résultats souhaités.

L'amélioration des phytoressources est devenue très courante en agriculture et en biologie expérimentale.

Le facteur le plus important pour la sélection végétale/animale est la **variation génétique** de la caractéristique souhaitée.

Dans le cas où cette variation génétique est absente, il y a des solutions d'amélioration proposées par la biotechnologie.

### Comment se définit une plante génétiquement modifiée?

Les premières plantes génétiquement modifiées (PGM) ont été obtenues par **transgénèse** et soumises à la réglementation spécifique concernant les OGMs (en Europe notamment).

C'est la raison pour laquelle le terme PGM est souvent associé aux plantes transgéniques.

Mais depuis, le champ des modifications génétiques en laboratoire s'est élargi à d'autres techniques, comme la **mutagenèse dirigée** et les **techniques d'édition du génome**.

# Geacutepolittique De Lalimentation

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## **Table of Contents Geacuteopolitique De Lalimentation**

1. Understanding the eBook Geacuteopolitique De Lalimentation
  - The Rise of Digital Reading Geacuteopolitique De Lalimentation
  - Advantages of eBooks Over Traditional Books
2. Identifying Geacuteopolitique De Lalimentation
  - Exploring Different Genres
  - Considering Fiction vs. Non-Fiction
  - Determining Your Reading Goals
3. Choosing the Right eBook Platform
  - Popular eBook Platforms
  - Features to Look for in an Geacuteopolitique De Lalimentation
  - User-Friendly Interface
4. Exploring eBook Recommendations from Geacuteopolitique De Lalimentation
  - Personalized Recommendations
  - Geacuteopolitique De Lalimentation User Reviews and Ratings
  - Geacuteopolitique De Lalimentation and Bestseller Lists
5. Accessing Geacuteopolitique De Lalimentation Free and Paid eBooks
  - Geacuteopolitique De Lalimentation Public Domain eBooks
  - Geacuteopolitique De Lalimentation eBook Subscription Services

- Geacuteopolitique De Lalimentation Budget-Friendly Options
- 6. Navigating Geacuteopolitique De Lalimentation eBook Formats
  - ePub, PDF, MOBI, and More
  - Geacuteopolitique De Lalimentation Compatibility with Devices
  - Geacuteopolitique De Lalimentation Enhanced eBook Features
- 7. Enhancing Your Reading Experience
  - Adjustable Fonts and Text Sizes of Geacuteopolitique De Lalimentation
  - Highlighting and Note-Taking Geacuteopolitique De Lalimentation
  - Interactive Elements Geacuteopolitique De Lalimentation
- 8. Staying Engaged with Geacuteopolitique De Lalimentation
  - Joining Online Reading Communities
  - Participating in Virtual Book Clubs
  - Following Authors and Publishers Geacuteopolitique De Lalimentation
- 9. Balancing eBooks and Physical Books Geacuteopolitique De Lalimentation
  - Benefits of a Digital Library
  - Creating a Diverse Reading Collection Geacuteopolitique De Lalimentation
- 10. Overcoming Reading Challenges
  - Dealing with Digital Eye Strain
  - Minimizing Distractions
  - Managing Screen Time
- 11. Cultivating a Reading Routine Geacuteopolitique De Lalimentation
  - Setting Reading Goals Geacuteopolitique De Lalimentation
  - Carving Out Dedicated Reading Time
- 12. Sourcing Reliable Information of Geacuteopolitique De Lalimentation
  - Fact-Checking eBook Content of Geacuteopolitique De Lalimentation
  - Distinguishing Credible Sources
- 13. Promoting Lifelong Learning
  - Utilizing eBooks for Skill Development
  - Exploring Educational eBooks
- 14. Embracing eBook Trends

- Integration of Multimedia Elements
- Interactive and Gamified eBooks

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