



## Vocabulary: Genetic Engineering



### Vocabulary

- **Callus** – a growing mass of unorganized plant cells.
  - Plant calluses have the potential to develop into fully grown plants.
  - Calluses are used for gene insertion because clones can be made that all contain the same genetic material. When a new gene is inserted into a callus clone, the effect of that gene on the plant can be compared to other clones.
- **Exon** – a part of a gene that codes for a protein.
  - Within a gene, the coding parts of the gene (exons) are separated by noncoding parts, or *introns*.
  - The introns are removed from mRNA.
- **Genetic engineering** – the direct manipulation of an organism's genome using biotechnology.
- **Genetically modified organism (GMO)** – an organism whose genetic material has been altered using genetic engineering techniques.
  - Types of genetically modified crops include corn, soybeans, and cotton genetically modified to be resistant to insects and herbicide.
- **Genome** – the complete set of DNA in an organism, including all genes.
- **Green fluorescent protein (GFP)** – a protein, isolated from the jellyfish genome, that glows bright green when exposed to ultraviolet light.
  - In genetic engineering, the GFP gene can be attached to a promoter of interest to determine where in an organism that promoter is functional.
- **Herbicide** – a pesticide used to kill unwanted weeds.
  - Pesticides are substances that kill organisms that are harmful to crops.
- **Insecticide** – a pesticide used to kill unwanted insects.
- **Intron** – a part of a gene that does not code for a protein.
  - Introns are removed from mRNA during a process called RNA splicing.



# Genetic Engineering Vocabulary

**Lingsheng Yao**



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