

# Basics of breeding and creating your own strains

## Selecting the Right Cannabis Seeds for Breeding

Before embarking on the journey of breeding and creating your own cannabis strains, it is crucial to understand the importance of selecting the right seeds. The quality of your seeds will significantly impact the success and outcome of your breeding endeavors. In this section, we will explore the factors to consider when choosing seeds for breeding.

1. **Genetics:** The genetic makeup of the seeds plays a vital role in determining the characteristics of the resulting strain. Look for seeds with strong genetics, as this will increase the chances of obtaining desirable traits.
2. **Strain Selection:** Determine the specific traits or characteristics you are looking to achieve in your strain. Whether it's high THC content, specific flavors, or medicinal properties, selecting seeds from strains with similar characteristics will increase the likelihood of achieving your desired outcome.
3. **Stability:** It is important to choose seeds from stable strains. Stability ensures that the offspring will display consistent traits across multiple generations.
4. **Reputation of the Breeder:** Research the breeders and seed banks you are considering. A reputable breeder will have a track record of producing quality seeds and strains. Look for reviews and testimonials from other growers to ensure reliability.

## Types of Cannabis Seeds

Cannabis seeds can be categorized into three main types: regular seeds, feminized seeds, and auto-flowering seeds. Each type has its advantages and disadvantages, which we will discuss in detail below.

1. **Regular Seeds:** Regular seeds are the most natural type. They have a 50/50 chance of being male or female. Regular seeds are preferred by breeders who wish to conduct extensive breeding programs to create new strains and stabilize traits.

### Advantages:

- Greater genetic variation
- Ability to select desired phenotypes for breeding
- Well-suited for large-scale breeding operations

### Disadvantages:

- Need to identify and remove male plants to prevent pollination
- Requires more space and time for breeding programs
- Less certainty about the sex of the plants

2. **Feminized Seeds:** Feminized seeds are genetically modified to produce only female plants.

This eliminates the need to identify and remove male plants, saving time and space.

Advantages:

- All plants will be female, ensuring more buds and higher yields
- Increased convenience in terms of space and time
- Eliminates the risk of unwanted pollination

Disadvantages:

- Limited genetic variation
- Less suitable for creating new strains or stabilizing traits
- Higher cost compared to regular seeds

3. Auto-flowering Seeds: Auto-flowering seeds are genetically modified to automatically switch from the vegetative stage to the flowering stage after a certain period, regardless of the light cycle.

Advantages:

- Fast growth and shorter flowering time
- No need for strict light control
- Ability to grow multiple harvests in a single season

Disadvantages:

- Limited control over the growth cycle
- Less suitable for breeding programs
- Potency and yield may be lower compared to regular or feminized seeds

## Cannabis Seed Germination

Successful germination is the first step in breeding and creating your own strains. Understanding the factors that influence germination can greatly enhance your chances of success. Let's explore these factors in detail.

1. Moisture: Cannabis seeds require a moist environment to initiate germination. Soaking the seeds in water or placing them between damp paper towels is a common method for providing the necessary moisture. Avoid excessive water, as this may lead to drowning or rotting of the seeds.

2. Temperature: The ideal temperature for cannabis seed germination is between 70-85°F (20-30°C). Lower temperatures may slow down or inhibit germination, while higher temperatures can lead to drying out or damaging the seeds.

3. Light: While cannabis seeds do not require light during germination, it can be beneficial to provide a dim light source to help seedlings emerge from the soil.

4. Air Circulation: It is crucial to maintain proper air circulation during germination. This helps prevent the growth of mold or fungus, which can damage or kill the seeds.

## Determining Seed Viability

To ensure healthy breeding and successful strain creation, it is essential to determine the viability of cannabis seeds. Here are some signs indicating whether a seed is healthy or unhealthy:

1. **Appearance:** Healthy seeds generally have a dark, smooth, and glossy outer shell. Unhealthy seeds may appear pale, cracked, or have visible damage.
2. **Size:** Seeds that are larger in size often indicate good health and viability.
3. **Hardness:** Healthy seeds are firm and robust when touched. Soft or squishy seeds are likely to be unhealthy.
4. **Float Test:** Place the seeds in a glass of water. Seeds that sink to the bottom are generally healthy, while those that float on the surface may have low viability or be unhealthy.

### Researching Reputable Seed Banks and Breeders

When choosing seeds for breeding, it is important to conduct thorough research on reputable seed banks and breeders. Here's how to evaluate the reputation of breeders:

1. **Online Research:** Look for reviews, ratings, and testimonials from other growers. Forums and online communities dedicated to cannabis cultivation can be valuable sources of information.
2. **Breeder History:** Research the breeder's background, years of experience, and track record. Breeders with a long history and positive reputation are more likely to produce quality seeds.
3. **Awards and Recognitions:** Look for breeders who have received awards or recognition for their strains. This is an indication of the quality and popularity of the breeder's work.
4. **Breeding Ethics:** Consider breeders who promote sustainable and ethical breeding practices. This ensures the preservation of genetic diversity and responsible breeding.

By understanding the importance of selecting the right cannabis seeds, learning about different seed types, comprehending the factors influencing germination, determining seed viability, and researching reputable seed banks and breeders, you will be equipped with the necessary knowledge and skills to successfully breed and create your own cannabis strains.