

# CHOOSING SEED FOR THE OYSTER GARDEN

## INTRODUCTION

There are a number of reasons to oyster garden - for the love of eating oysters and to help improve water quality. You don't have to choose which is more important - you can do both. Below are considerations when selecting oyster seed for your garden. Keep in mind, the choices may be limited because the commercial demand dictates the seed options. If you are planning to eat your oysters, please be sure your garden is in waters approved for shellfish harvest. If you don't know how to find this information - consult the [VIMS Marine Advisory Program's Oyster Gardening page](#) for more information.

## PLOIDY - diploid or triploid?

Ploidy is the number of sets of chromosomes in a cell. Diploids are the natural, reproductive form; with 2 sets of chromosomes (1 from Mom & 1 from Dad). Triploids have 3 sets of chromosomes which renders them "spawnless". Triploids are the most widely used on commercial farms in Virginia because they grow fast and are marketable year-round. Triploids are good summer harvest options because their diploid counterparts have poor meat quality and yield due to reproduction.

- If your garden is in an approved harvest area and you want to eat your oysters in the summer time, triploids are a good choice.
- If you are growing for the sole purpose of restoration, diploids are the best choice for their ability to reproduce. But if you can't find diploids, remember - triploids offer the same filtration and habitat benefits as diploids.
- You can also grow both!

## STOCK - selected or unselected?

Know the growing area classification of your oyster garden location and do NOT eat oysters from closed / condemne Oyster Stocks (a.k.a. lines, or strains) are batches of the Chesapeake Bay native oyster (*Crassostrea virginica*) that have been selectively bred for improved performance - mainly faster growth and better survival in the face of oyster diseases (MSX and Dermo). There are a variety of stocks available in Virginia, thanks to the breeding work conducted at [VIMS' Aquaculture Genetics & Breeding Technology Center \(ABC\)](#). VIMS stocks have unique names like "Deby", "Lola", or "Henry" and can be available as diploids or triploids. Commercial hatcheries also produce seed stocks from their local, unselected oysters and will name them after the water body, for example "MB" for Mobjack Bay's.

- Local, non-selected stocks may be harder to come by, but the use of unselected stocks are preferred for restoration purposes and the more local the stock, the better. But if you can't find them, don't worry. Choose what is available because all oysters will provide important filtration and habitat benefits.

## SALINITY

Consider salinity of your site and of the seed source location. A good rule of thumb is to keep salinity differences to 8 ppt or less. Oysters are tough creatures but rapid changes in salinity can be stressful and combined with other stressors, such as time out of the water and temperature shock, could lead to mortality.

## SIZE

Oyster gardeners are advised to purchase seed at ¼ inch or ½ inch which can be placed directly into grow-out bags. The bag mesh size should be 1 size smaller than the seed size, so your seed doesn't fall through. For example, if you buy seed that is ½ inch, stock them first in ¼ inch mesh bags. More information on these details can be found in the [`How to be an Oyster Gardener`](#) guide, produced by Jackie Partin.

## PURCHASING

Small volumes of seed for individual gardens are not handled by most commercial hatcheries or nurseries. It's best to purchase from vendors at oyster gardening events or local farmers markets. Check the [VIMS MAP Oyster Gardening](#) site for links. Don't buy more seed than you have gear to maintain it as it grows! That handful of seed doesn't look like a lot now, but it will grow quickly and require more room (gear) to grow.

## AVAILABILITY

Because the commercial industry is using primarily triploids, diploids are hard to come by. A way around this is to take advantage of diploid spawns planned for large-scale restoration projects. Commercial businesses don't want to field multiple individual calls so the best course of action is to work through an organization, such as the [Tidewater Oyster Gardeners Association](#), to obtain a batch of desired seed.

## FINAL THOUGHTS ON THE CHOICES

The recommendation for oyster gardeners is to grow unselected diploids for local restoration but these choices are harder to source. Any Virginia oyster selection will provide the important filtration and habitat benefits. And the performance of different stocks will depend on the conditions at your particular location. Take the advice from experienced gardeners and local seed sellers and have fun testing out what works best for your garden.