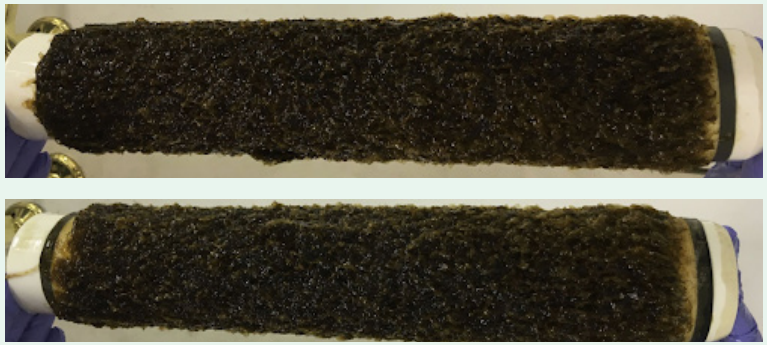
Seed Spool Quality Grading Guidelines

Spool quality is a factor of uniform growth, blade health, and presence of contamination. The grading guidelines may differ across regions and species, but the general rules remain the same. Both nurseries and farmers should put focus on high quality seed spools, and the line of communication between both parties should be honest. Below are photos of spools of excellent, good, acceptable, and unacceptable quality along with descriptions of each to aid you in your spool grading. For an appropriate farm site, the quality of seed has the greatest impact on total yield.



Excellent (10-9)

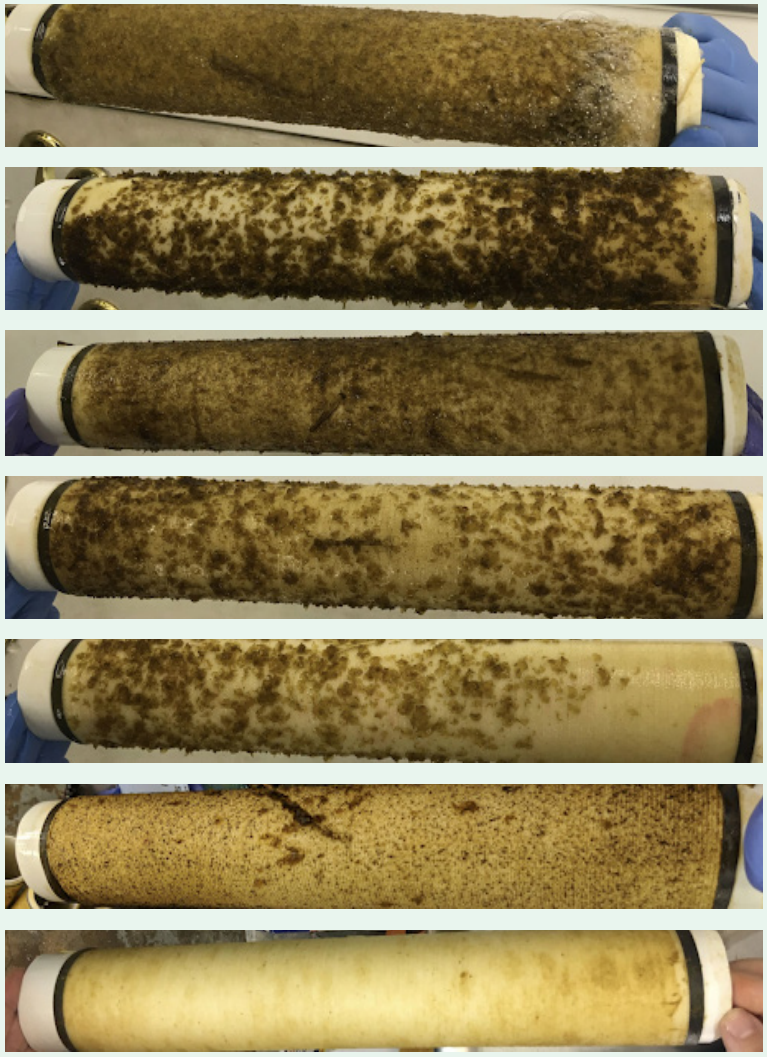
An excellent seed spool is one that has uniform growth across the spool and shows no signs of contamination or sporophyte stress. It is common for the first few wraps on the top and bottom of the spool to have a lower density kelp; this does not influence the spool grade except for instances where the blank space extends down the spool.

Good (8)

A good seed spool has healthy looking sporophytes and uniform growth, but may be a little less dense than an excellent spool.

Acceptable (7)

An acceptable spool has uniform growth and sporophytes that may be slightly discolored.



Unacceptable (6-0)

Even if a spool has uniform coverage, it can still be unacceptable for other reasons including bleached blades and contamination.

Bleached blades can result from various factors in the nursery. If blades are too bleached, they **will not** be able to recover. However, some lighter colored blades may recover and grow fine. The line between unrecoverable and recoverable is difficult to assess, so it is best to err on the side of caution.

Some contaminations do not pose a major threat to seed and will still result in good yield. Small amounts of ectocarpus and diatoms are among this group. However, high densities of ectocarpus, diatoms, bacteria, and cyanobacteria can smother spools and cause blank spots or blank spools. Avoid spools that appear slimy, green, or pink.

Spool coverage is a main indicator of how well a spool will perform. Do not use spools that are very spotty or have no visible growth, as these are a result of bad spore settlement or contamination.