

PolySeed®

Technical Report

Troubleshooting High and Low SCF

When running the BODs test, sufficient seed activity is key to achieving a Seed Control Factor (SCF) that falls within the appropriate range of 0.6 to 1.0 mg/L. Insufficient seed activity results in a SCF that is either too high or too low. To correct problems with a HIGH or LOW SCF, first ensure optimal seed activity by making sure that:

- ☑ Your lot of PolySeed® is current and unexpired
- ☑ All labware has been properly cleaned prior to use
- ☑ The nutrient buffer is not expired and has fully dissolved
- ☑ The temperature, pH and conductivity of the dilution water is within range
- ☑ The dilution water has been fully saturated before the seed is introduced
- ☑ The PolySeed solution has stirred and aerated for at least 1 hour prior to use
- ☑ The PolySeed solution has been used within six hours of hydration
- ☑ The correct amount of seed is being added to the seed controls

If problems persist after addressing all items in the checklist above, the next step is to manipulate the population density of the PolySeed solution. Do this by adjusting the dilution water volume:



For Low Seed Activity: Increase the population density of the solution by **decreasing the dilution water used to rehydrate the PolySeed by 50-250mL.** This process is approximately linear, so to increase the seed activity by 20%, the dilution water should be **decreased** by 20%.



For High Seed Activity: Decrease the population density of the solution by **increasing the dilution water used to rehydrate the PolySeed by 50-250mL.** Again, this process is approximately linear, so to decrease the seed activity by 20%, the dilution water should be **increased** by 20%.