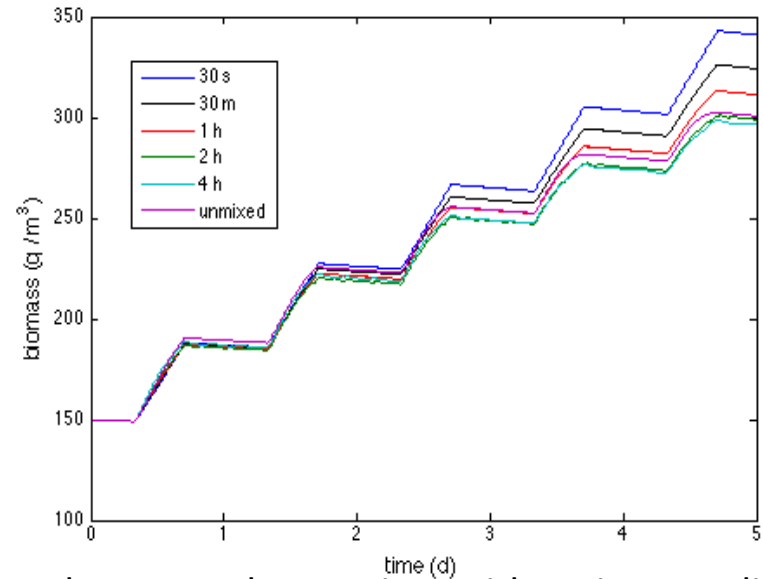


Validated algae growth model is being applied to ATP³ raceway ponds.

Computational fluid dynamics (CFD) turbulence models were compared to select the appropriate one for raceway and tubular flows. The CFD model has been expanded to full 3D to understand variations in the ponds with depth and distance from paddle wheel.

The effects of the mixing time from the paddle wheel and turbulence on the algae growth have been studied.

Initial comparisons between model and ATP³ ponds show promising results



Algae growth over time with various applied mixing times at high light and high temperature for *N. salina*.