

Role of Sulphur oxidizing bacteria in mitigation of hydrogen sulphide toxicity in aquaculture farm

Advisory to Aqua-farmers

Better management practices in Aquaculture

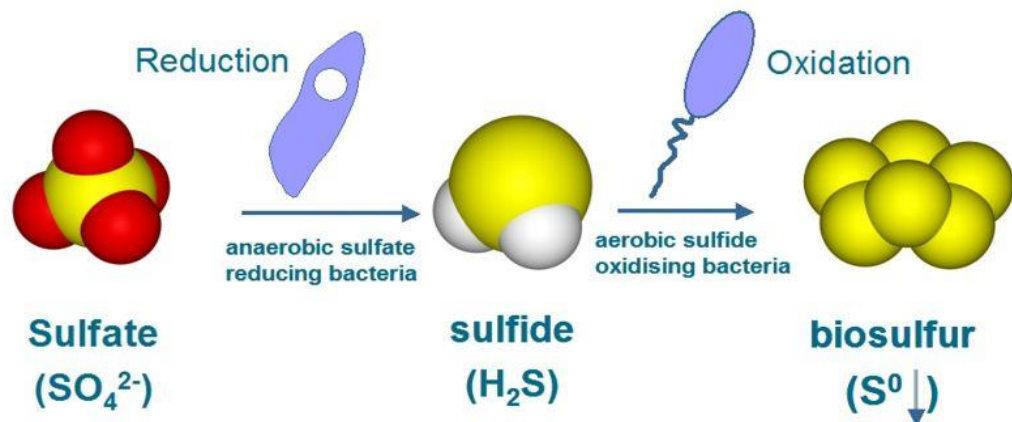


Hydrogen sulphide formation in aquaculture farm and its problems

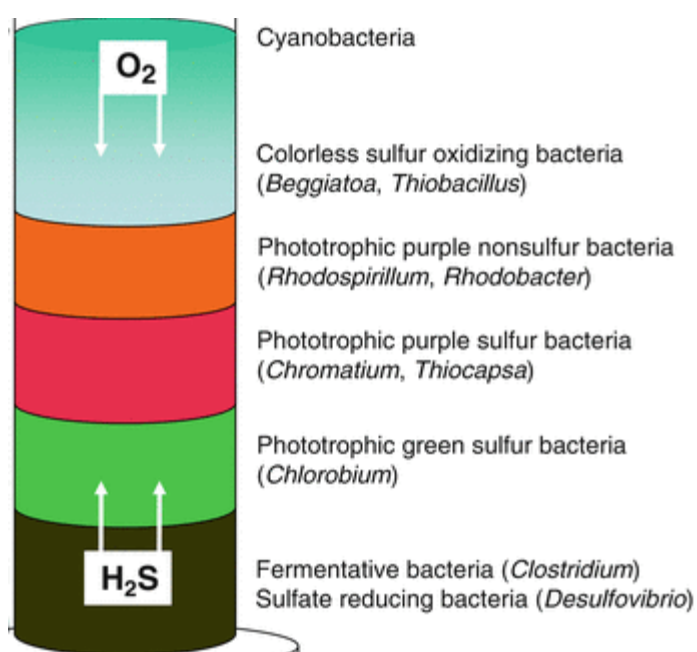


Results from decay of excessive feed, faecal matter dead and decaying plankton/algae form layer on the soil surface with black color and bad smell (rotten egg). It is highly toxic at very low levels causing 100% mortality.

Sulphur oxidizing bacteria (SOB)

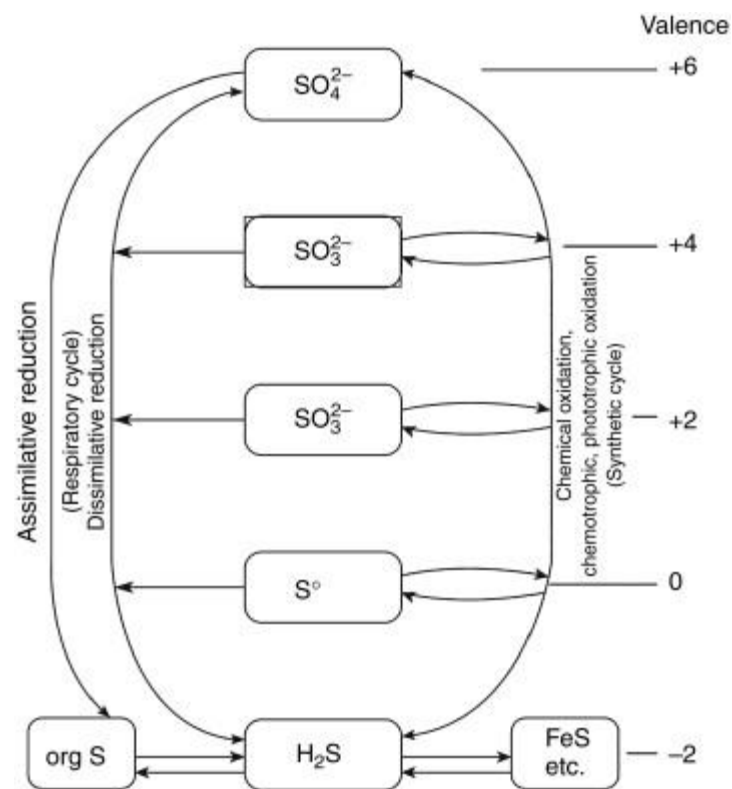


Sulphur oxidizing bacteria metabolizes sulphide to elemental sulphur and sulphate which is non-toxic



Distribution of SOB in aquaculture pond

Beneficial role of SOB in aquaculture



Participates in the assimilative and dissimilative reduction of sulphur compounds in the pond bottom

They are having capability of utilizing toxic H₂S in their metabolism

They can be applied as beneficial bacteria for improving water quality either in liquid or lyophilized form

They promotes better environmental conditions for growth of aquatic animals

Adopt BMP in aquaculture

Use of SOB as Bio-inoculants

Provide congenial environment for animal growth

Improved productivity in Aquaculture systems

