

Free webinar about harmful algal blooms threats in drinking water works and bbe products application in this field

PROGRAMMA COMPLETO / COMPLETE PROGRAM

- **Reviewing the algae bloom and its threats. (10 min)**
 - The occurrence of algae blooms in the different water bodies
 - Increasing algae blooms occurrences all around the world
 - Cyanobacteria increasing problem and reviewing the international regulations like WHO, DVGW, EPA, EU WFD
 - Toxins, Taste and odor problems, where does it come from?
- **Reviewing the different algae treatment methods and common threats arise by algae (10 min)**
 - First step: Monitoring and detection of the biomass amount
 - Case study: Variability in the two years algae composition data of Clearlake in the USA
 - Ultrasonic remediation methods, Using chemical components like copper, water circulation, barley straw
 - Using Disinfectors like chlorine oxidizers like Ozon (releasing the toxins, cell lysis)
 - Filtering and the clogging problem of the filters (Reduction of the backflush interval) and sand filter monitoring using the BenthosTorch in the Peru)
- **Why Cyanobacteria is the main threat to the drinking water works? (10 min)**
 - Different types of cyanobacteria and its 50 % cyanotoxins producing genes (i.e. Planktothrix rubescens) Gene classification and expression
 - Cyanobacteria and their toxic compounds (introducing some types of cyanotoxins)
 - Case study of Solingen Waterwork in Germany
 - Depth distribution of the cyanobacteria and different algae classes (using the FluoroProbe for measuring the vertical profile of chlorophyll concentration in the lakes)
- **How online measurements in different treatment process steps (i.e. AOA) can help? (10 min)**
 - Multi-channel Unit (checking the treatment results)
 - Toxins can pass the filter fluorometry can measure Cell Lyses, but further treatment process i.e., activated coal is needed
 - Activity measurement: the health of the phytoplankton
- **Questions and open discussion (15 min)**
 - Experiences of the operators and solved Problems
 - Questions