

# Update on Opportunities/Challenges for Biosolids Internationally

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# California Association of Sanitation Agencies

- Formed in 1956
- Represent more than 125 public wastewater agencies (more than 90% of wastewater flow) and 80 private firms (engineering, financial, technology, legal, management, etc.)
- State and Federal Legislative Advocacy
- Regulatory expertise and engagement
- Communication

# International Biosolids Opportunities/Challenges

- Global Good Agricultural Practices (GGAP)
  - Prohibits the use of biosolids
- European Union Sewage Sludge Directive
  - Adopted in 1986

# Global GAP

- International Marketing Program, subscribing to “Good Agricultural Practices”
- ~200 Producers and Suppliers
- ~55 Retailers
- 135 Nations

# Global GAP

- Became aware of biosolids prohibition in 2017
- Discussions with Director in South Africa – since not all nations have biosolids regulations, GGAP erred on side of safety and instituted prohibition
- Formed workgroup of municipalities, regulators, academics, farmers, and biosolids associations
- Collaboration with France, Austria, Australia, Canada, Japan, others

# Global GAP

- Developed recommendations for lifting biosolids prohibition
- Addressed USA Crops Technical Workgroup in Chicago in June 2018
- Hubert Brunet (France) and I addressed GGAP Technical Committee on Crops in Cologne, Germany September 2018, with support from Horst Muller (Austria)
- Great discussions but no action taken

# Global GAP

- New Chair appointed to the Technical Crops Committee (Raina Spence in USA) in 2019
- Reached out to us in 2021 because GGAP is trying to better align with EU Green Deal, circular economy, regenerative agriculture, etc. and believe Biosolids can play an important role
- Hoping to gain approval for biosolids on flowers and ornamentals as a first step
- Engaged with the GGAP team and that committee met last week

# Global GAP

- We offered three recommendations for approval
- Biosolids comply with National and/or local regulation as well as limits proposed
- Provide evidence/analytical results to end user to confirm compliance with regulations and limits
- Don't lift prohibition in nations without regulations



# Proposed Limits

Compound	Unit	Composted Biosolids	Other Forms of Biosolids
<b>TRACE ELEMENTS</b>			
Cadmium	mg/kg	4	8
Chromium (total)	mg/kg	80	160
Mercury	mg/kg	1	2
Nickel	mg/kg	50	100
Lead	mg/kg	120	240
Arsenic	mg/kg	40	80
Copper	mg/kg	450	900
Zinc	mg/kg	800	1600
<b>ORGANIC COMPOUNDS</b>			
PAH 16	mg/kg	6	12
<b>PATHOGENS</b>			
Salmonella	CFU	Absence in 25 g or 25 ml	
E Coli or Enterococcae	CFU	1000 in 1 g or ml	
<b>IMPURITIES</b>			
Macroscopic impurities (glass, metal, plastics > 2 mm)	g/kg	3	

# European Sewage Sludge Directive

- In process of re-evaluation to determine if it is still effective and appropriate
- Working with our European colleagues to provide input and comment
- Since it was adopted in 1986 and was not risk based, it should be updated
- Two step process – Re-evaluation followed by a legislative proposal

# European Sewage Sludge Directive

- EU wants to ensure SSD is aligned with EU Green Deal
- Climate neutrality, Zero Pollution, & Circular Economy
- Re-evaluation ongoing and collaborating with EU Partners

# Questions?

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