First Global Multi-Stakeholder Meeting on
RESPONSIBLE LIVESTOCK

WATER IN LIVESTOCK

Julio Cesar Pascale Palhares

Embrapa Cattle Southeast

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WE MUST STUDY WATER MANAGEMENT, BUT ALSO STUDY HYDROPHILOSOPHY IN LIVESTOCK

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WHY WE DISCUSS ANIMAL PRODUCTION AND WATER SOURCES?

BECAUSE WE PRODUCE

WATER-INTENSIVE COMMODITIES

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LIVESTOCK will face increasing competition for natural resources.

WATER is one of them.

BRAZIL has water in quantity and quality.

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WE NEED:

✓PRESERVE and CONSERVE

✓WATER EFFICIENCY

(Domain – Farm)

✓LIVESTOCK WATER PRODUCTIVITY

(Domain – Society)

✓UNDERSTAND WATER IN ANIMAL PRODUCTION

(Dimensions)

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WATER DIMENSIONS IN LIVESTOCK

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STUDIES

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WATER FOOTPRINT IN BRAZILIAN PIG PRODUCTION

PALHARES, J.C.P. Water footprint of pigs slaughtered in the states of south-central Brazil. DOI: 10.4025/actascianimsci.v33i3.9924

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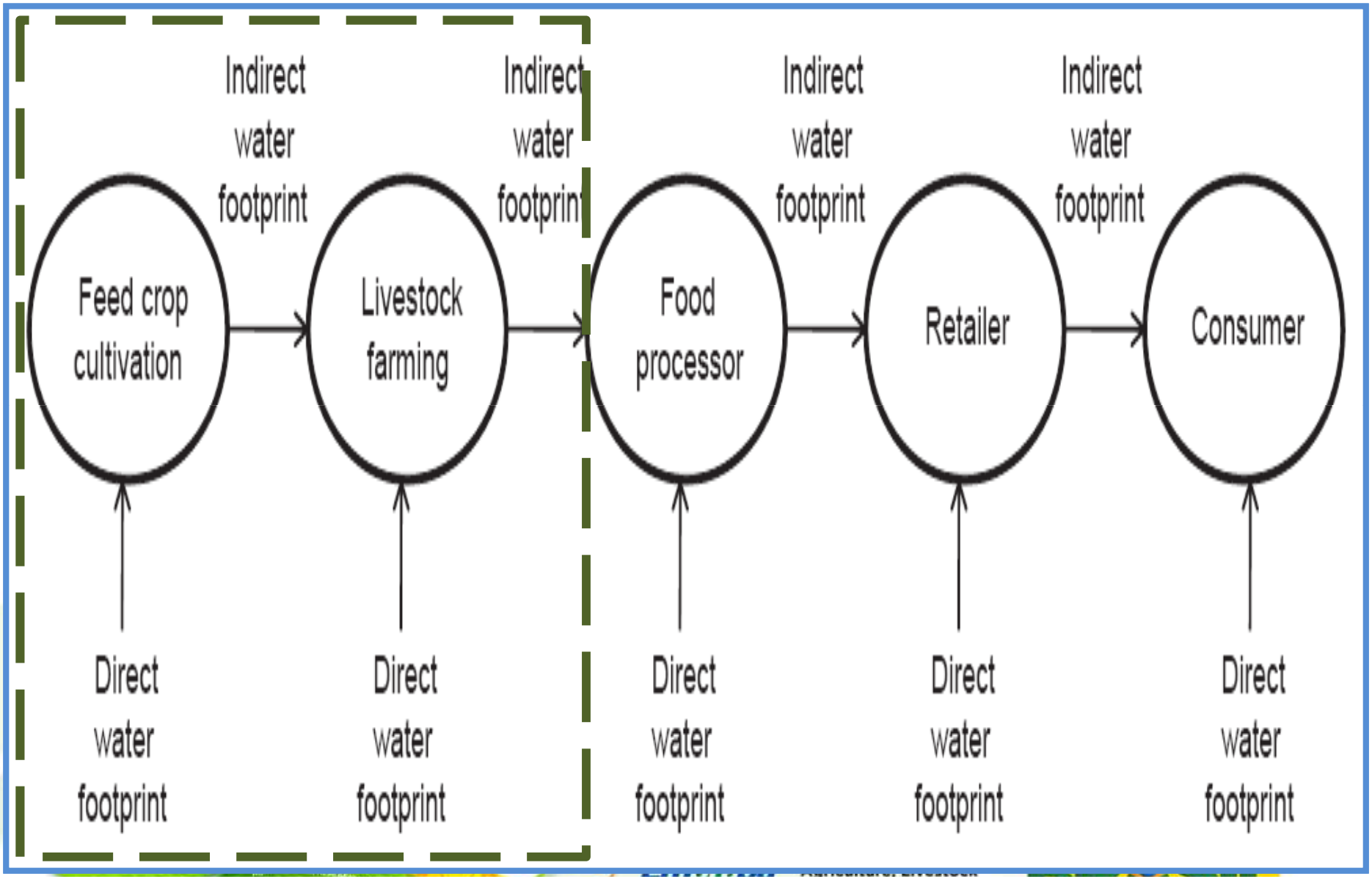
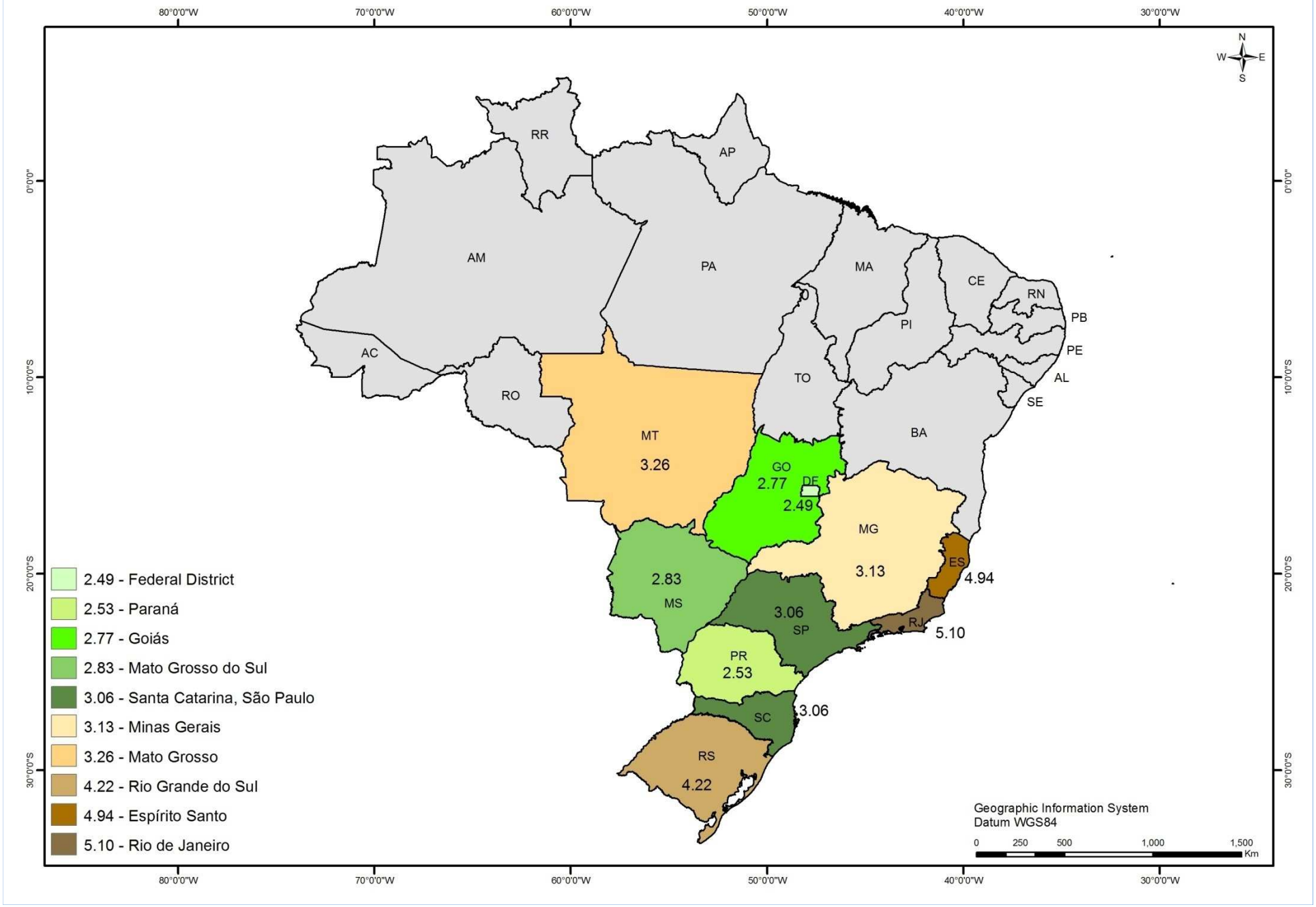
The direct and indirect water footprint in each stage of the supply chain of an animal product

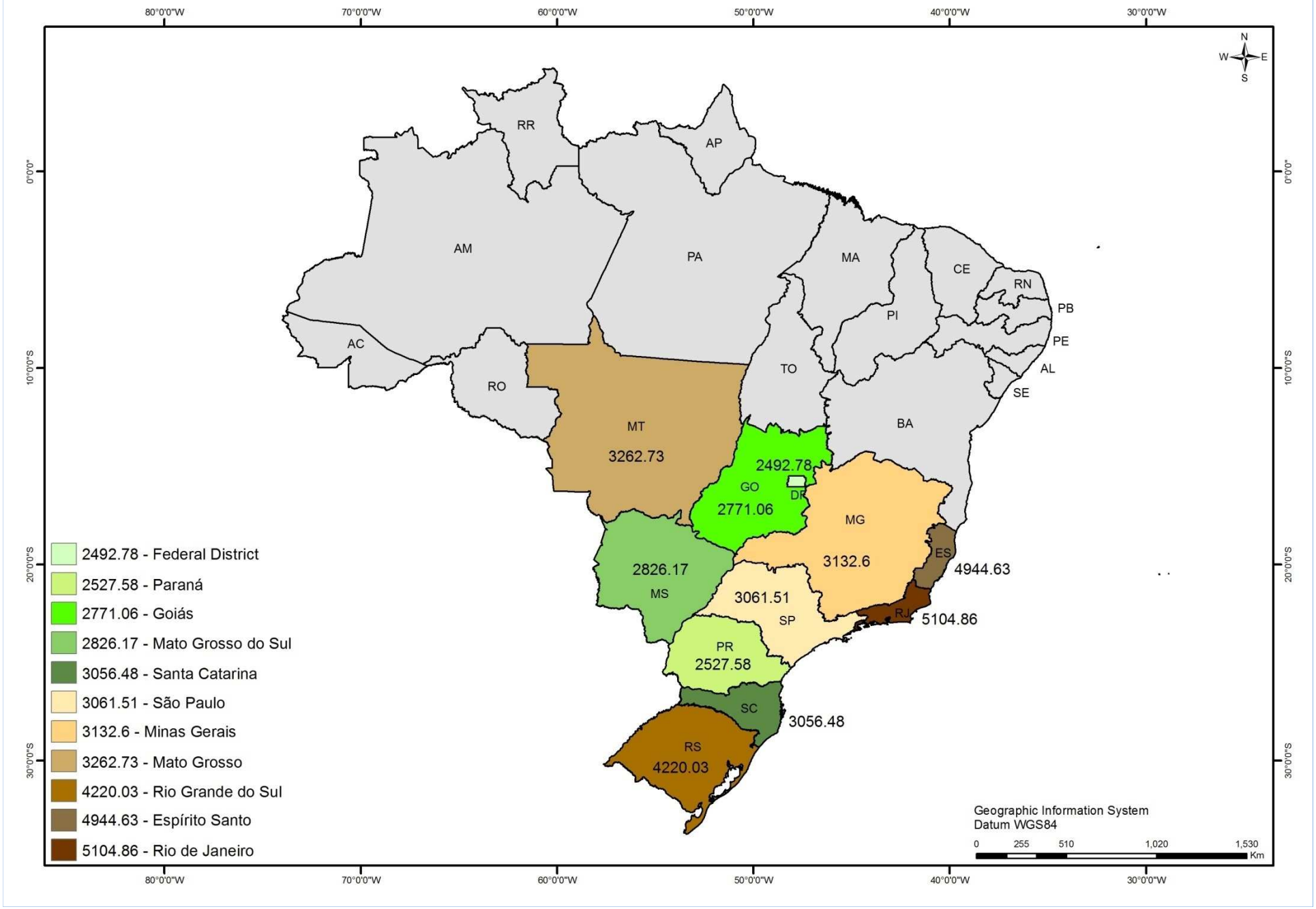


The Water Footprint Assessment Manual. Hoekstra et al. 2011

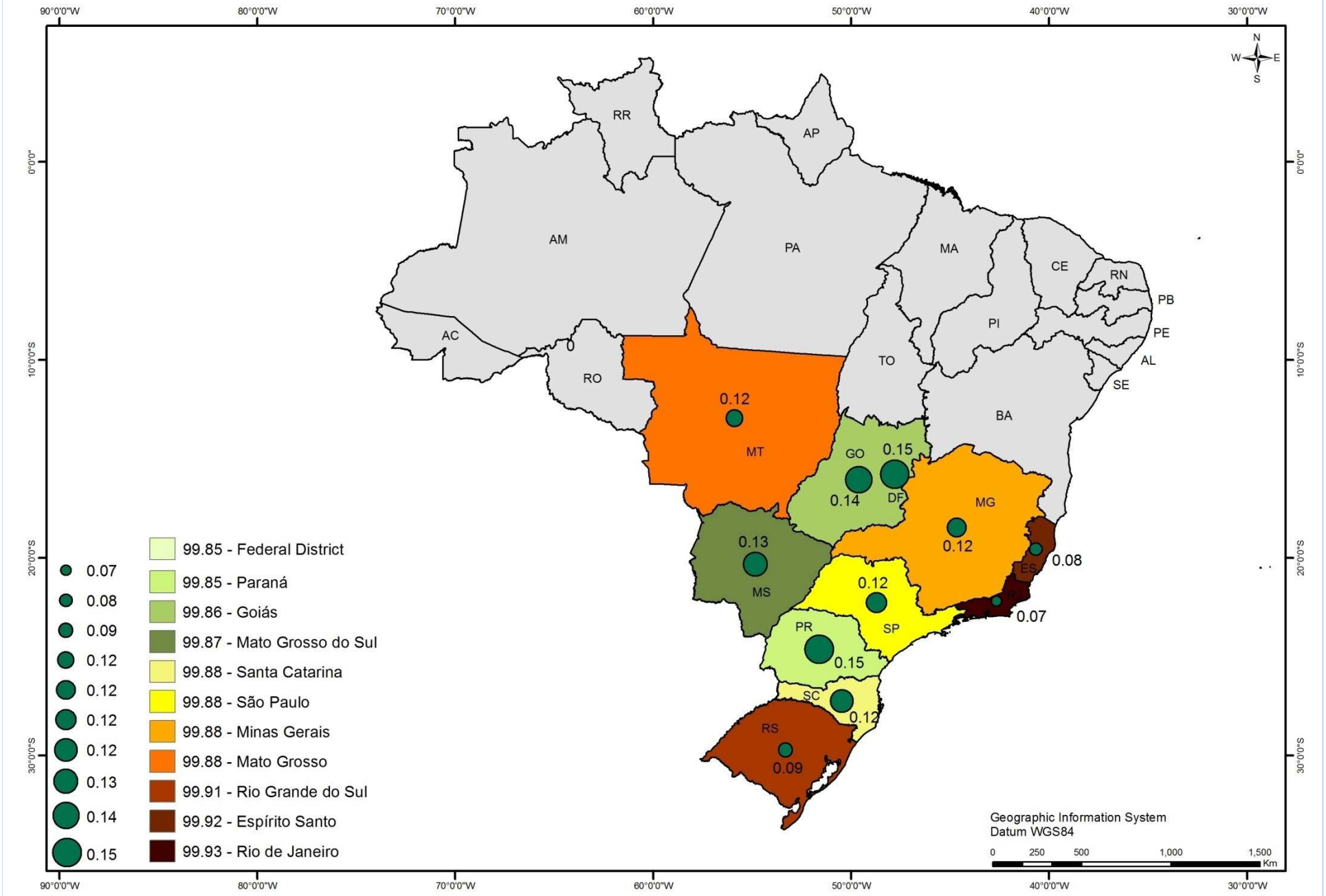
PIG GROWING-FINISHING: WATER PRODUCTIVITY (M^3/KG) – YEAR 2008



PIG GROWING-FINISHING: WATER PRODUCTIVITY (M^3/T) – YEAR 2008

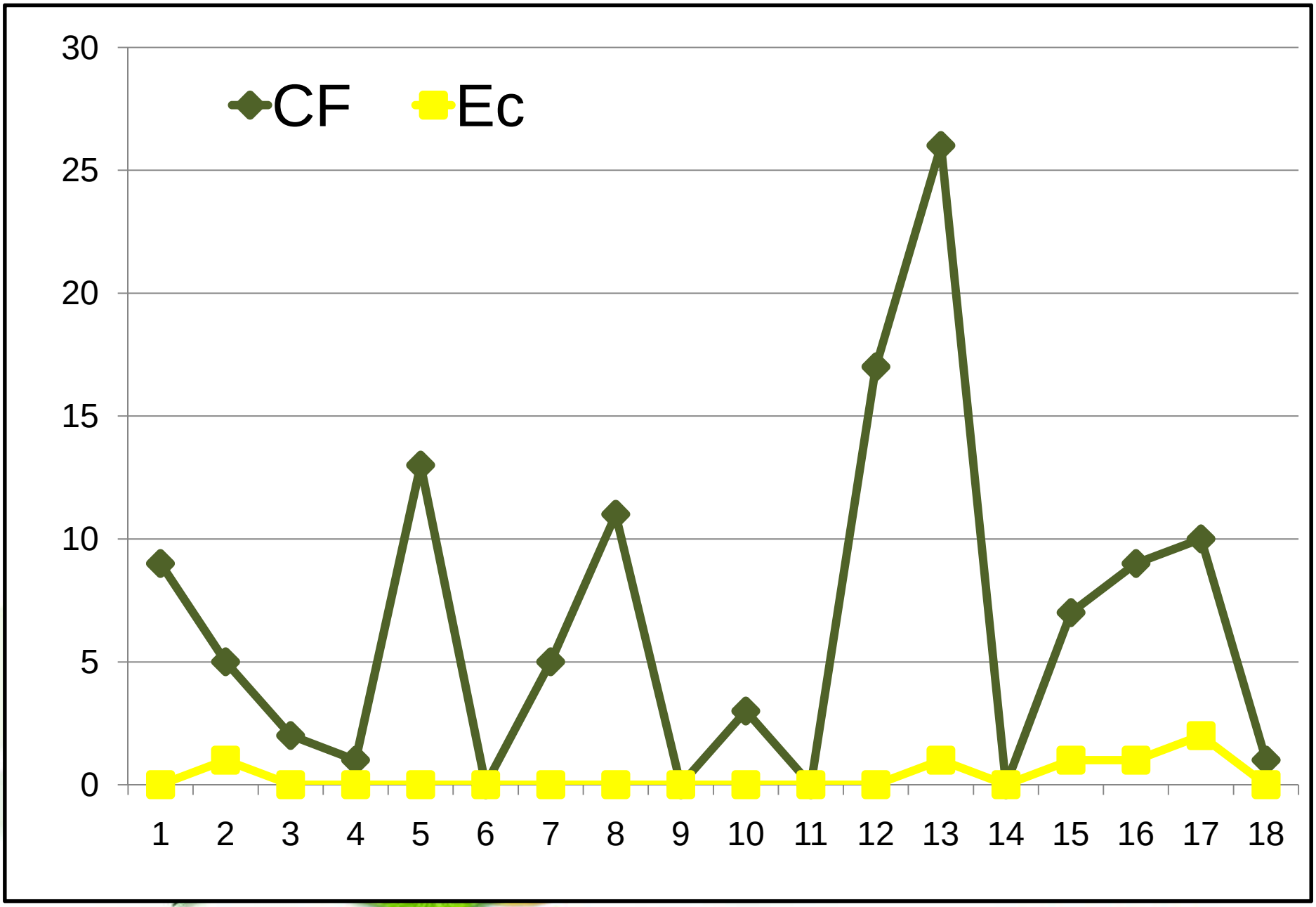


PIG GROWING-FINISHING: GREEN AND BLUE WATER (%) – YEAR 2008



MONITORING WATER QUALITY IN A CISTERN USED TO PIG AND CATTLE DRINKING WATER (Coldebella et al. 2010)

Fecal Coliform and E. coli (UFC/ml)



Clean technologies applied to swine production: establishment of sanitary and physico-chemical standards for swine wastewater reuse

Coordinator: Airton Kunz

Embrapa Swine and Poultry

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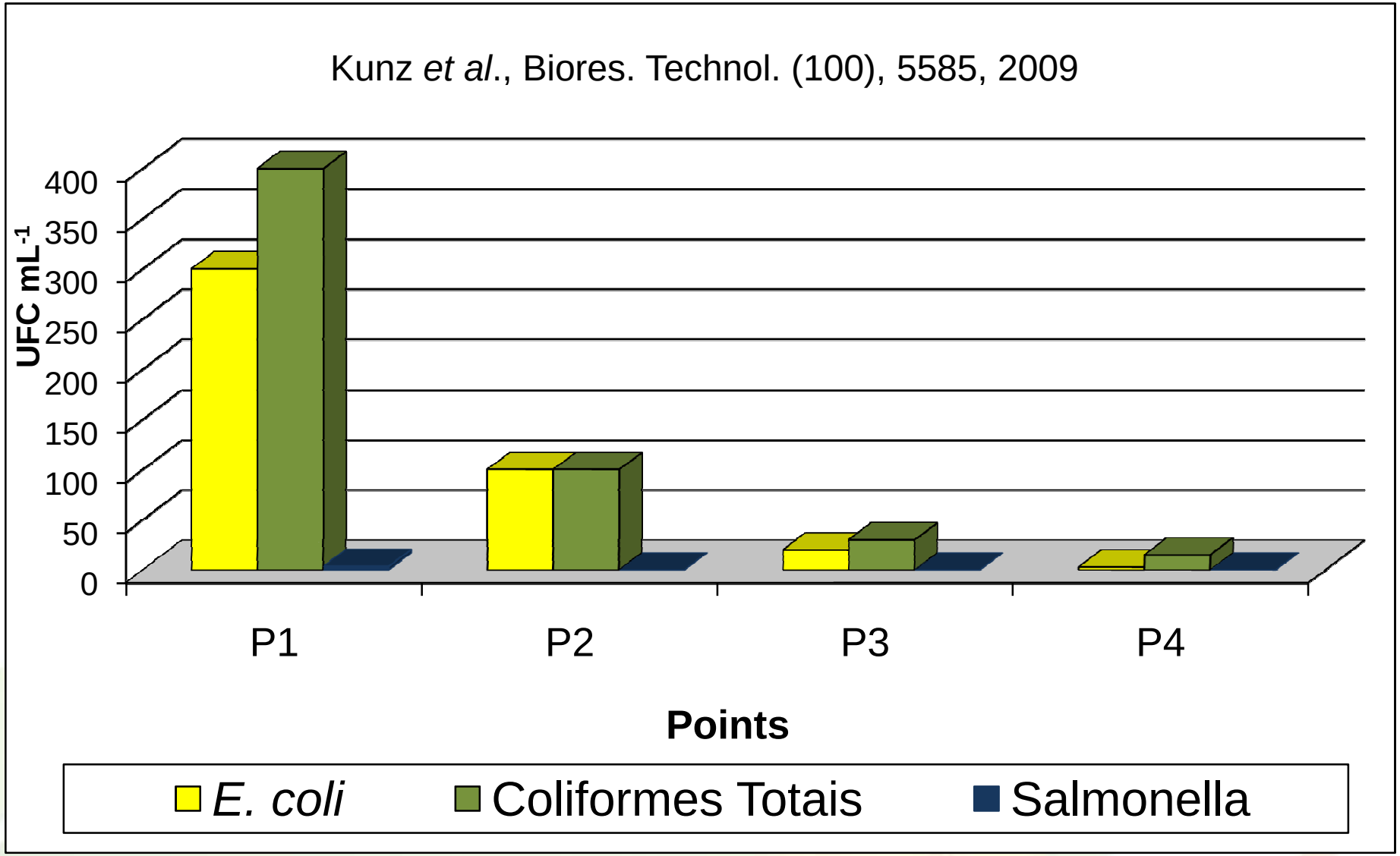
MICROBIOLOGICAL QUALITY OF EFFLUENT



CHALLENGES

- Understanding relations between water and livestock;
- Internalize a hidroculture in livestock;
- Measure the water consumption in production systems;
- Using nutrition technologies to improve water efficiency
- Evaluate wastewater treatment systems, considering environmental, social and economic aspects;

CHALLENGES

- Establish water efficiency indicators;
- Water Best Management Practices;
- Use animal waste as fertilizer, considering nutrient balance;
- Plan programs, policies and laws to diffuse pollution;
- Economic value of water ?????
- Promote WATER EDUCATION to livestock actors chains.

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THANK YOU

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