

## **CHIMICA AGRARIA – Attività di Ricerca**

1. Nutrient (nitrogen and phosphorus) recovery from agro-industrial wastewater and their reuse for agricultural purposes;  
Responsabile Vito Armando Laudicina & Luigi Badalucco;  
Funded by: [WIDER UPTAKE](#) - European Union's Horizon 2020 research and innovation programme
2. Reuse of wastewater for irrigation in agricultural;  
Responsabile Vito Armando Laudicina & Luigi Badalucco;  
Funded by: [WIDER UPTAKE](#) - European Union's Horizon 2020 research and innovation programme
3. [Soil biodegradation of nutrients enriched cellulose- and chitosan-derived mulching films for sustainable horticulture \(Acronym: MULCHING+\)](#);  
Responsabile: Vito Armando Laudicina;  
Funded by Ministero dell'Università e della Ricerca, Bando PRIN 2020
4. From waste to resource: development of citrus industry wastewater to improve soil fertility and plant growth (Valutazione degli effetti dell'irrigazione con acque reflue dell'industria agrumaria sul suolo e sulla pianta);  
Responsabile: Vito Armando Laudicina;  
Supported by PON Ricerca e Innovazione & INPS
5. Phosphorus (P) recovery from surface water through the use of materials derived from agriculture;  
Responsabile: Filippo Saiano  
Supported by CINECA

**Other research activity:** Soil quality bioindicators (L. Badalucco), Development of new method for soil microbial carbon and nitrogen determination (L. Badalucco), Traceability of oils and cheeses (P. Conte), innovative materials for environmental recovery (P. Conte), Role of organic matter in soil stabilization processes (P. Conte), Soil management and soil fertility (V.A. Laudicina), Greenhouse gas emission from agricultural soils (V.A. Laudicina), Environmental role of secondary metabolites (E. Palazzolo), Fruit quality and secondary metabolites (E. Palazzolo), Traceability and geographical origin of agricultural products with elemental composition (F. Saiano), Study of translocation of rare earth element in *Vitis Vinifera* L. : from soil to grape (F. Saiano).