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# Food and Agriculture organization of the United Nations

### **Terms of Reference for Interns**

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| **Name:** |  | | | | | |
| **Job Title:** | Internship – Microplastics in agricultural soils | | | | | |
| **Division/Office:** | | CJN – Joint FAO/IAEA Centre of Nuclear Techniques in Food and Agriculture – Soil Water Management and Crop Nutrition Laboratory (SWMCNL) | | | | |
| **Duty Station:** | Vienna, Austria | | | | | |
| **Linkage to FAO’s Four Betters:** | Better Environment | | | | | |
| **Start Date of Assignment:** | | | Depending on donor. From date FAO contract is signed, at least four weeks are needed for visa | **Duration and**  **End Date:** | 11 months | |
| **Report to, name of supervisor:** | | | Dongxin Feng | **Title:** | Director CJN responsible for daily matters | |
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| General Description of task(s) and objectives to be achieved | | | | | | |
| |  | | --- | | **Background:**  Under the supervision of the Laboratory Head and the Soil Chemist, the intern assists in implementing the agreed work programme of the Laboratory and the subprogramme. The main goal is the development of nuclear technologies and stable isotopes for assessment of the fate and decomposition of plastics in soils. |   **Duties and Responsibilities:**  The intern assists in carrying out experiments in the laboratory and field, using isotopically labelled polymers, to monitor the fate of microplastics in soils and determine effects of environmental factors on conventional and bioplastics degradation. The intern contributes to innovative research and development (R&D), provides relevant services, and supports the SWMCNL’s capacity building and outreach activities. The intern works closely on collaborative projects with all professional staff members of the Soil and Water Management & Crop Nutrition Laboratory.  These activities will provide the intern with a unique learning experience at the interface of environmental, agricultural sciences and nuclear technologies. | | | | | | |
| key performance indicators | | | | | | |
| **Expected Outputs**: | | | | | | Required Completion Date: |
| * Receive hands-on training in the use of carbon-13 techniques for assessing the persistence of plastic in agricultural soils. * Assist in implementing experiments in the laboratory and field using isotope and related techniques for monitoring the fate of plastic in soils, determining the effects of environmental factors on the decomposition of (conventional and biodegradable). * Learn how to interpret laboratory and field data and report experimental results. | | | | | | * 11 months after start date * 11 months after start date * 11 months after start date |
| **REQUIRED COMPETENCIES** | | | | | | |
| **Minimum requirements:**   * Enrolled in an under-graduate, graduate degree programme in Agronomy, Soil Science, Biology or Environmental Sciences with a major emphasis on Microbiology in a “bona fide” educational institution at the time of application or recent graduate. Please note that FAO only considers higher educational qualifications obtained from an institution accredited/recognized in the World Higher Education Database (WHED), a list updated by the International Association of Universities (IAU)/United Nations Educational, Scientific and Cultural Organization (UNESCO). The list can be accessed at [http://www.whed.net/](http://www.whed.net/home.php). * Experience in the laboratory with emphasis on molecular biology or microbiology in the field of micro-plastics, organic pollution or related environmental sciences is an asset. * Experience in the use of isotopic and nuclear techniques for organic pollutants is an asset. * Fluency in English. * Candidates should be aged between 21 and 30. | | | | | | |
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