1. ABOUT THE DATASET

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Title: Flower visitor, fruit yield and fruit quality data from UK apple orchards under flowering and nesting habitat interventions

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Description: These data include information on flower visitor abundance and species richness (30 different species of bees, flies, butterflies and moths were recorded on the whole), pod productivity (percentage of flowers that set fruit) and pod quality (length, diameter, seed number and weight) of moringa grown under different pollination treatments including pollinator exclusion (no visitation by insects), open pollination (visitation by insects) and supplementary pollination (hand pollinated) in plantations that are used as control, and in plantations with inter and border-cropping as floral interventions. Data were collected for Translating Research Opportunities to enhance Pollination benefits to economically Important Crops And improve Livelihoods (TROPICAL) project.

Cite as: Dhandapani, Selva, Pakkirisamy, Manikandan, Rajaraman, Ranjith, Garratt, Michael, Potts, Simon, Raj, Rengalakshmi, Subramanian, Malarvannan and Senapathi, Deepa (2023): Flower visitor, pod productivity and pod quality data from Moringa plantations with floral interventions and control. University of Reading. Dataset. https://doi.org/10.17864/1947.000508

Related publication: Dhandapani S, Pakkirisamy M, Rajaraman R, Garratt M, M, Potts S, Raj R, Malarvannan S, Senapathi D ‘Floral Interventions enhance flower visitor communities and pollination services in Moringa plantations’. Journal of Applied Ecology, 61 (1). pp. 90-102. ISSN 1365-2664. doi: https://doi.org/10.1111/1365-2664.14532

2. TERMS OF USE

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3. CONTENTS

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Three CSV files 1. MoringaVisitorAbunSR\_Final.csv, providing data on Flower visitor abundance and species richness, 2. MoringaFruitSetHarvest\_Final.csv, providing data on proportion of moringa flowers that set to fruit and harvest, and 3. YieldversusPollinators\_Final.csv, providing data on moringa pod productivity and quality parameters, and their relationship with flower visitor abundance and species richness.

4. METHODS

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Data on insect flower visitors and pollination enhancement in moringa were gathered from 12 control moringa fields and 12 moringa fields with floral interventions in Dindigul district, Tamil Nadu, India. Data on flower visitors was collected using transect surveys to record flower visitors to species level where possible, or to family level. Branches on 12 trees in each study site were also assessed for pollination following manipulations which included pollinator exclusion using net bags, supplementary pollination, whereby pollen was applied by hand using compatible pollen from other trees in the field, and open pollination that’s accessible to insect visits. From these branches, metrics of moringa pollination, including early fruit set, final fruit set, moringa seed number, weight, length and diameter were collected.

For full details see: Dhandapani S, Pakkirisamy M, Rajaraman R, Garratt M, M, Potts S, Raj R, Malarvannan S, Senapathi D ‘Floral Interventions enhance flower visitor communities and pollination services in Moringa plantations’ (In Press) Journal of Applied Ecology.