



With technical support of



Food and Agriculture Organization
of the United Nations

FUNDAÇÃO



SUSTAINABLE SOIL MANAGEMENT: ITS PERCEPTION AND THE NEED FOR POLICY INTERVENTION IN THE EUROPEAN CONTEXT

G. Basch^{1,2*}, E.J. González-Sánchez^{1,3,4*}, A. Kassam⁵

¹European Conservation Agriculture Federation (ECAf). Rond Point Schumann 6 Box 5. Brussels (Belgium). www.ecaf.org

²Institute of Mediterranean and Environmental Sciences. Universidade de Évora, Évora, Portugal;

³Asociación Española Agricultura de Conservación Suelos Vivos. Ifapa Alameda del Obispo. Córdoba, Spain. www.agriculturadeconservacion.org

⁴Departamento Ingeniería Rural, Etsiam, Universidad De Córdoba, GI AGR 126. Mecanización y Tecnología Rural. Campus de Rabanales, Córdoba, Spain. www.uco.es/cemtro

⁵University of Reading, Earley Gate, Reading RG6 6AR, UK.

Corresponding author: gbasch@ecaf.org

As stated in the strategic objectives of the Global Soil Partnership “healthy soils and sustainable soil management are the precondition for human well-being and economic welfare and therefore play the key role for sustainable development”. Although the functional properties of a healthy soil are well understood, in practice it is easily overlooked what is necessary to achieve and sustain healthy agricultural soils. This contribution intends: to discuss the concept of sustainable soil management in agricultural production with regard to soil health, and to highlight its importance in the achievement of both Sustainable Development Goals and the 4 per mille objectives, as well as for the Common Agricultural Policy (CAP). In Europe, soil and the need for its conservation and stewardship gained visibility at the beginning of this century during the discussions related to the Soil Thematic Strategy. This higher level of awareness concerning the status of Europe’s soils led to the introduction of soil conservation standards into the cross-compliance and recently into the greening mechanisms within the 1st Pillar of CAP. However, the business-as-usual model of tillage based agriculture continues and soil degradation through erosion, soil organic matter and soil biodiversity decline and compaction together with general yields’ stagnation continues.

In light of the above, urgent action is needed to extend the timid European efforts of agricultural soil conservation and to include measures that would cover and apply directly to a much larger area under agricultural production while preserving and enhancing the production potential and capacity of the farmland. Crop production and agricultural land management based on the principles of Conservation Agriculture (no-till seeding and weeding, maintaining soil mulch cover, crop diversification) has proven to improve decisively the delivery of all soil-mediated productivity and ecosystem services, including soil carbon sequestration (4 per mille), the efficient use of natural resources and external inputs, and thus improved cost efficiency and profit, while maintaining or increasing productivity. However, especially in Europe, institutional and policy support is needed to mainstream this truly agro-ecological approach of Conservation Agriculture to sustainable farming and land management.

Keywords: Soil health, Common Agricultural Policy, Conservation Agriculture, Ecosystem Services, Productivity