

## An introduction to biodynamic approach in agriculture

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**B**iodynamic agriculture is a method of organic farming that treats farms as unified and individual organisms (Burkitt *et al.*, 2007). Emphasizing balancing the holistic development and interrelationship of the soil, plants, animals as a self-nourishing system without external inputs (Carpenter *et al.*, 2000). As in other forms of organic agriculture, artificial fertilizers, toxic pesticides and herbicides are strictly avoided. There are independent certification agencies for biodynamic products, most of which are member of the international biodynamics standards group. Demeter International regarded by some as the first modern ecological farming system and one of the most sustainable, (Chalker-Scott, 2004). Biodynamic farming has much in common with other organic approaches, such as emphasizing the use of manures and composts and excluding of the use of artificial chemicals on soil and plants. Methods unique to the biodynamic approach include the use of fermented herbal and mineral preparations as compost additives and field sprays and the use of an astronomical sowing and planting calendar (Harwood, 1990). Biodynamics originated out of the work of Rudolf Steiner on development of biodynamic agriculture began in 1924 with a series of eight lectures on agriculture given by Rudolf Steiner at Schloss Koberwitz in what was then Silesia, Germany, (now in Poland east of Wroc<sup>3</sup>aw). The course was held in response to a request by farmers who noticed degraded soil conditions and a deterioration in the health and quality of crops and livestock resulting from the use of chemical fertilizers Kirchmann (1994). An agricultural research group was subsequently formed to test the effects of biodynamic methods on the life and health

of soil, plants and animals.

Today biodynamics is practiced in more than 50 countries worldwide. Demeter International is the primary certification agency for farms and gardens using this methods.

### **Biodynamic method of farming:**

Biodynamic agriculturalists conceive of the farm as an organically self-contained entity with its own individuality, within which organisms are interdependent. "Emphasis is placed on the integration of crops and livestock, recycling of nutrients, maintenance of soil, and the health and well being of crops and animals; the farmer too is part of the whole. Cover crops, green manures and crop rotations are used extensively and the farms foster bio-diversity.

Green revolution started on a organic carbon rich soil and the responses to applied fertilizer were spectacular. With passage of time, green revolution is showing symptoms of fatigue and responses to applied fertilizers have started dwindling. Decline in food production, degeneration in native soil fertility and deterioration in environmental

In natural condition the ecosystem, in which the living is converted in to non living and nonliving in to living, maintain the biological balance of soil. During this process the nutrients removed from the soil are returned to it in a cyclic manner. Unfortunately from the 6<sup>th</sup> decades of nineteenth century, removal of nutrients has increased more in comparison to enhanced and the natural equilibrium was skewed towards negative balance. To avoid the indiscriminate use of chemical fertilizers, pesticides, weedicide etc. and to ameliorate the Indian soils from multi-nutrient deficiencies the Integrated