

SHORT NOTE ON VAVILOV

- Nikolai I. Vavilov (1887–1943) is recognized as the foremost plant geographer, botanist and geneticist of contemporary times.
- Vavilov was among the first to recognize the need for intensive plant collecting, research and preservation.
- He organized and took part in over 100 collecting missions in the major agricultural areas of the world.
- He considered it to be of the highest priority in biological and agricultural sciences for developing sustainable agricultural production.
- Vavilov developed the concept of centers of origin for agronomic crops.
- Vavilov's hypotheses set the stage for the modern use of exotic germplasm in plant breeding.
- He focused his efforts and great energy toward improving the human condition
- From Charles Darwin's ideas, he realized that plant species were not fixed; they evolve over time
- Vavilov, a devoted scientist, continued to revise and refine his theory of the centers of origin throughout his lifetime based on additional plant collections and data evaluation.
- Though he initially proposed three centres in 1924, and eight in 1935, his final papers of 1940, discussed seven major centers with some minor additions, which at present is total 8.

IMPORTANCE OF CENTRES OF ORIGIN / IMPORTANCE OF VAVILOV'S WORK

- His concept of specific centers of origin for crop plants has directed breeders, to continue improvement and economic development of plants for humanity.
- Inherent genetic plant variability is the basis of domestication and breeding into crops of economic importance with food, fuel, fiber, and industrial uses.
- Vavilov's plant explorations and collection trips led to the development of his theory of the centers of origin of cultivated crops, the law of homologous variation, as well as his concept of genetic erosion.
- His influence on present day conservation of genetic resources is commendable.

- Researchers linked the origins and primary regions of diversity of food and agricultural crops with their current importance around the world in modern national food supplies and agricultural production.
- His concept that diseases and pests coevolved at centers of origin for cultivated crops have provided a roadmap for collectors of valuable genetic diversity.
- They have guided the present genetic resource community where gene banks should be located, and in the proper protocols for genetic resource conservation