**HortGenome Search Engine, a universal genomic search engine for horticultural crops**

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Horticultural crops comprising fruit, vegetable, ornamental, beverage, medicinal and aromatic plants play essential roles in food security and human health, as well as landscaping. With the advances of sequencing technologies, genomes for hundreds of horticultural crops have been deciphered in recent years, providing a basis for understanding gene functions and regulatory networks and for the improvement of horticultural crops. Despite the availability of valuable genomic data, the information is dispersed across various data warehouses using diverse storage approaches, making it challenging to access and analyze. Consequently, there has been a growing emphasis on employing search engines to explore functional genes, gene relationships, and enhance our comprehension of plant biology. However, standard search engines only provide limited search results when confronted with vast genetic data, leaving a significant amount of genetic information untapped and buried in raw data. To this end, we have developed a lightweight universal search engine, HortGenome Search Engine (HSE; http://hort.moilab.net), which allows querying genes, functional annotations, protein domains, homologs, and other gene-related functional information of horticultural crops. In addition, four commonly used tools, including ‘BLAST’, ‘Batch Query’, ‘Enrichment analysis’, and ‘Synteny Viewer’, have been developed for efficient mining and analysis of these genomic data.