De Novo Next Generation Sequencing of Plant Genomes

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Abstract

The genome sequencing of all major food and bioenergy crops is of critical importance in the race to improve crop production to meet the future food and energy security needs of the world. Next generation sequencing technologies have brought about great improvements in sequencing throughput and cost, but do not yet allow for de novo sequencing of large repetitive genomes as found in most crop plants. We present a strategy that combines cutting edge next generation sequencing with old school genomics resources and allows rapid cost-effective sequencing of plant genomes.