Researchers at Weill Cornell Medical College in Qatar have mapped a draft version of the date palm genome, unlocking many of its genetic secrets.

“We have generated a draft DNA sequence and initial assembly of the date palm using the most advanced technology,” says Joel Malek, director of the Genomics Laboratory at WCMC-Q. Genetic information about the date palm is extremely valuable to researchers who are working to improve fruit yield and quality and to better understand susceptibility and resistance to disease.

To produce the draft map, the WCMC-Q researchers used a next generation sequencing approach, which Malek says offers data quality between that of the expressed sequence tag (EST) method and the traditional whole-genome mapping method. “We were able to develop a relatively unbiased view of the gene space of the entire date palm plant at a fraction of the cost and in a much shorter period of time. Using this approach, which takes advantage of the lower repetitive DNA in the date palm gene regions, we have increased the publicly available knowledge of the date palm gene by about 1000 fold.”

Malek says he and his colleagues will continue to improve the draft sequence and publish their data. Meanwhile, they are making the information available to scientists and researchers around the world. It is available on the WCMC-Q web page.