This study compared the characteristic properties of the yarns produced on three different yarn spinning systems with the same material. These spinning systems are conventional ring, compact, and compact-jet. Compact-jet is a proper combination of compact and jetring-spinning systems and therefore it is less known. On the other hand, conventional ring and compact spinning systems are well known in the spinning field. When the compact-jet spinning system was designed, it was aimed to gather the advantages of the jetring and compact spinning systems. Therefore, an air nozzle was placed between the exit of the RoCoS compact unit and the yarn guide of the spinning system. At the end of the study, it was determined that the compact-jet yarn properties are different from that of the conventional ring and compact yarns. The compact-jet spinning system is mainly effective on yarn hairiness and compact-jet yarn is superior compared with other yarns.