Let $T$ be a tree with vertices labeled by distinct integers. We say $T$ is increasing if the labels along any path from the smallest vertex to any other vertex are increasing. Now suppose $G$ is a graph with vertex set $\{1, 2, \ldots, n\}$. An increasing spanning forest of $G$ is a spanning forest such that each connected component is increasing. We will discuss some properties of the generating function for the increasing spanning forests including connections with the chromatic polynomial of the graph. We will also discuss the generalization of this work to simplicial complexes and multigraphs. (Received September 23, 2017)