

Establishment of drip-irrigated poplar in semi-arid British Columbia

Roman Chapman

Supervisor: Thomas Pypker

Committee Members: J. Karakatsoulis, W. Gardner

Introduction

Materials and methods

Results

Discussion

Short rotation, intensively managed poplar plantations can reduce some of the pressure on British Columbia's forests by augmenting the supply of fibre that they provide. In 2016, a location 40 km west of Kamloops on the Skeetchestn Indian Reserve was established as a plantation site where four poplar clone types were planted and watered with drip-irrigation. Clones were evaluated for establishment success as well as early indications of desirable growth forms specified by a nearby engineered wood products company. A mechanical site preparation treatment was compared to a treatment that did not include any site preparation (interplanting with existing Big sagebrush) and the effects these treatments had on establishment and early growth were examined.

Initial results indicate some differences in mortality among the different clone types. Mechanical site preparation treatments also appear to be associated with differences in mortality and overall height when compared to non-site preparation treatment groups. Also, planted whips with larger basal diameters were associated with lower mortality.

Outcomes of this study may help with planning future poplar plantations and lead to better understanding of poplar growth in a semi-arid environment.