TIPSY Use Policy and Installation

B.C. Ministry of Forests January 2023

The Table Interpolation Program for Stand Yields (TIPSY) is a growth and yield program that provides electronic access to managed stand yield tables generated by TASS and SYLVER. TIPSY is currently used extensively by silviculturists, timber supply analysts, forest planners and forest managers in B.C. Check the Ministry of Forests Growth and Yield Modelling Website for more information. TIPSY retrieves yield tables from its database, customizes the information and displays summaries and graphics for a specific site, species and management regime. Yield tables are available for eleven pure even-aged coniferous species of commercial importance in British Columbia. An optional multiple species feature will prorate the yields for up to a maximum of 5 species. This option was developed to aggregate stands for the benefit of timber supply planners. TIPSY does not simulate the growth of multiple species stands biologically. The only biological assumption is the site index conversion adjustment among species.

TIPSY projects the growth of managed stands starting at age zero in support of silvicultural planning and timber supply analyses. Users may also consider <u>VDYP</u> for natural stands within the provincial inventory, or TASS III for multi-cohort stands of white spruce and lodgepole pine.

Treatments in TIPSY, which vary by species, include initial density, fertilization, spacing and commercial thinning. Special features include genetic improvement, repression, input of limited data from existing stands (i.e. height, number of trees, and treatment), operational adjustment factors, and an integrated batch processing mode. TIPSY generates the following information: standing yields, snags, coarse woody debris, products (i.e. logs, lumber, carbon, and biomass), and employment summaries. Economic analysis is provided by the companion program.

FAN\$IER. BatchTIPSY generates batch processing and reports standing yields only.

If TIPSY does not offer the silvicultural treatment or level needed, please contact Mario Di Lucca or Ronald Aranha. They may initiate special customized runs with TASS if the treatment is available (e.g. pruning, commercial thinning, ingress simulations, or a particular spatial distribution involving a specified level of clumping).

Reliability

The yield information in TIPSY was calibrated to conform to a database in excess of 10 000 remeasured permanent sample plots. The number of plots varies greatly by species, treatment, and site index. The following reliability estimates are based on the number of plots by species, site index, experience, and basic knowledge of tree growth and stand development. Reliability also varies by treatment, stand age and other factors.

Site Index ¹	Species ²							
	Fdc	Hw c	Ss	Cw	PI	Sw	Fdi	Hwi
Good	G	G	М	Р	G	М	М	Р
Medium	M	M	М	Р	G	M	M	Р
Poor	Р	Р	Р	Р	М	Р	Р	Р

Guidelines for use

TIPSY offers users a wide range of potential input values. However, clients are encouraged to rely on the guidelines and default settings provided unless local data are available. Guidelines and default values are derived from the best information available for the most common applications. Extensive on-line documentation will help users prepare customized input data. For instance, suppose you decide to fertilize a stand of Douglas-fir. You can refer to the guidelines and default values to select the most appropriate response for your stand. In the case of western hemlock, you can use the default that shows no response, or you can enter a response based on specialized information from one of the few hemlock sites (e.g. CWHvm1/Salal/North Island) known to respond to fertilizer. In any case, TIPSY input should be supported by professional experience, knowledge of local conditions, and an appreciation of stand dynamics.

¹Site Index: For coastal species Good =35, Medium =25, Poor=15. For interior species Good=20, Medium=15. Poor=10.

²Species: Fdc (coastal Douglas-fir), Hwc (coastal western hemlock), Ss (Sitka spruce), Cw (western redcedar), Pl (lodgepole pine), Sw (white spruce), Fdi (interior Douglas-fir), Hwi (interior western hemlock). Reliability: G (good), M (Medium) P (Poor).