

## ABSTRACT

Generally, production system has constraint that prevents it from higher performance. This constraint should be recognized and should be managed, thereby not prevent the production system any longer. This research was conducted to determine the constraint and to optimize it with line balancing analysis.

At PT Dieng Djaya-Wonosobo, constraint was found on workstation 2 (inspection II), it was perceived with little mushroom stacks and big mushroom inspector idleness. Generally mushroom production line was not balance, it's clearly seen from the operation rates that were not equal. Inspector arrangement was chose to optimize the Fancy line. From 7 and 8 line one inspector was moved to 4A and 4B line. Increment inspector was held in Non Fancy line, 8 inspectors should be worked on Non Fancy line, so it needs 6 more inspectors. The main problem was the lack of fresh mushroom, so the use of synthetic compost would anticipate the lack of *ampas tebu*, the raw material of compost. The other alternative was statistical quality control that would step up the Fancy percentage. These alternatives are suggested to do simultaneously.