

2012 LTER Agronomic Protocol Kellogg Biological Station

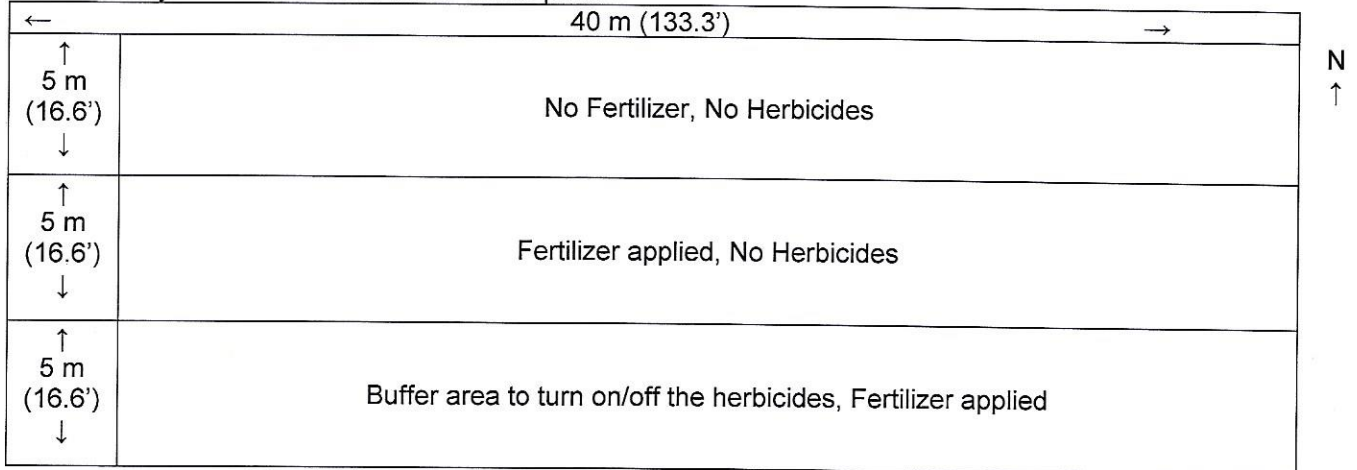
Micro-plots in Treatments 1 and 2

Since establishment of the LTER, treatments 1 and 2 have contained microplots that have been used to determine long term effects of weed populations without herbicide applications. Treatment 1 and 2 microplots contain two treatments (no herbicide, no fertilizer vs. no herbicide, with fertilizer).

Micro-plot size and location: Micro-plot area is 40 m (133.3 ft) wide from the northwest corner towards the east. From the northwest corner going south, total micro-plot area is 15m (50 ft) deep. Each treatment within the micro-plot area is 5m (16.6 ft) i.e. the no fertilizer, no herbicide area is 5m, the fertilizer, no herbicide area is 5m, and the buffer area is 5m. A buffer area was created because of the need for turning the herbicide spraying boom on and off during applications.

Crops/plants inside treatment 1 and 2 micro-plot areas are mowed before crop harvest. The weeds are usually so thick within the micro-plot areas that the crop growth is not enough to harvest. Specifically, treatment 2 micro-plot areas have such a thick grass growing in it that no crop growth occurs in these areas. Treatment 1 micro-plot area usually has a thick density of quackgrass and annual broadleaves that not much crop growth occurs. We mow the micro-plot area in treatments 1 and 2 so that we do not put all the weeds through the combine.

Size and layout of treatment 1 and 2 micro-plots



This is a working protocol used for planning purposes. Due to potential changes in chemicals, fertilizer, varieties planted, planting dates etc... please refer to the agronomic field log for actual field operations that take place during 2012.