

Calibration in R

```
#' compute annual yield'
#'  

#' Function to compute yeild of different fruits as a function of annual temperature and precipitation  

#' @param T annual temperature (C)  

#' @param P annual precipitation (mm)  

#' @param crop.pars - list that contains the following  

#' @param Topt optimal temperature (C)  

#' @param max.water maximum water requirement (mm)  

#' @param ts slope on temperature  

#' @param tp slope on precipitation  

#' @param base.yield baseline yield (kg)  

#' @param irr irrigation in (mm)  

#' @return yield in kg  

compute_yield = function(T, P, irr, crop.pars) {  

with(as.list(crop.pars), {  

nyears=length(T)  

irr.peryear = rep(irr, times=nyears)  

water.input = P+irr.peryear;  

yield = ifelse(water.input < max.water,  

               tp*water.input - ts*abs(T-Topt) + base.yield,  

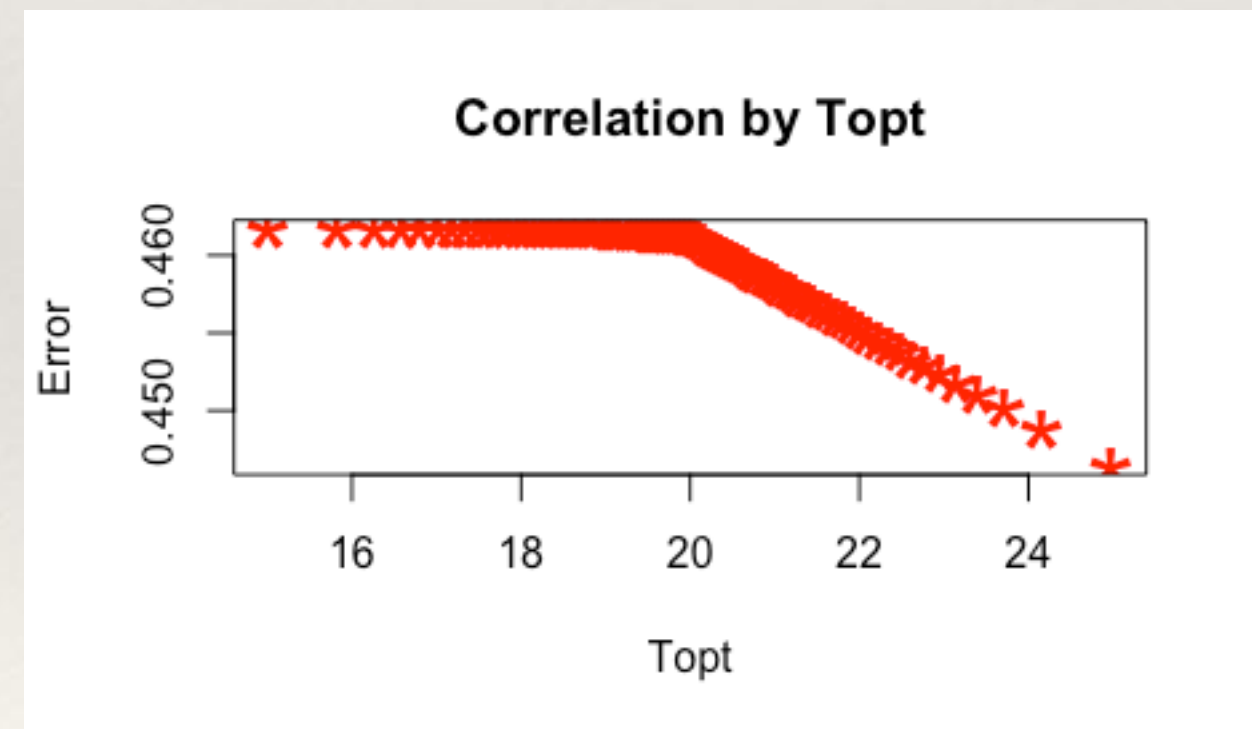
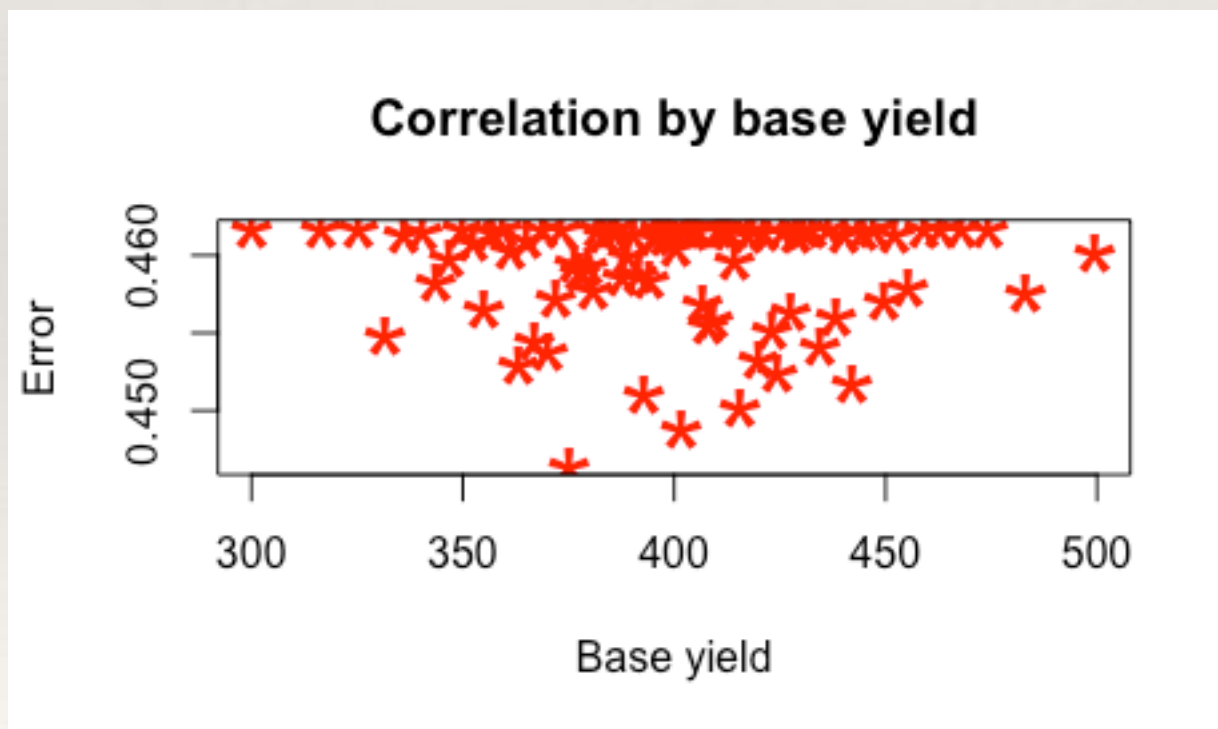
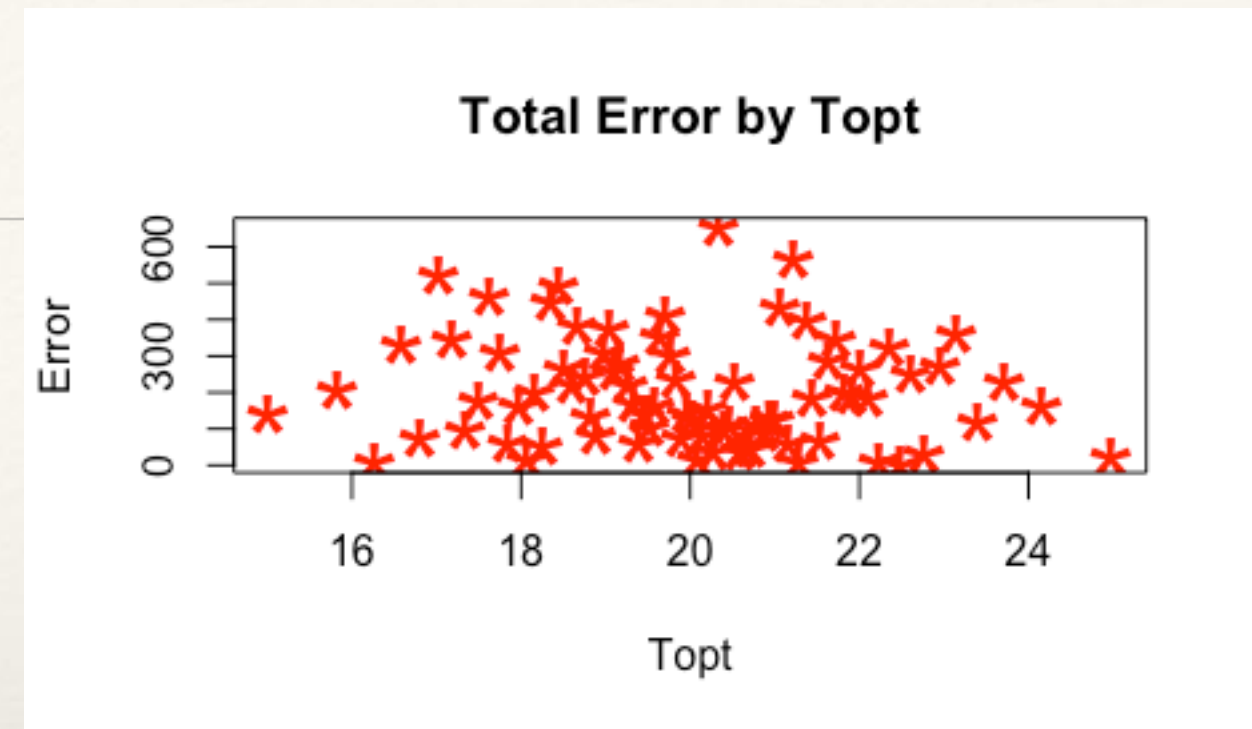
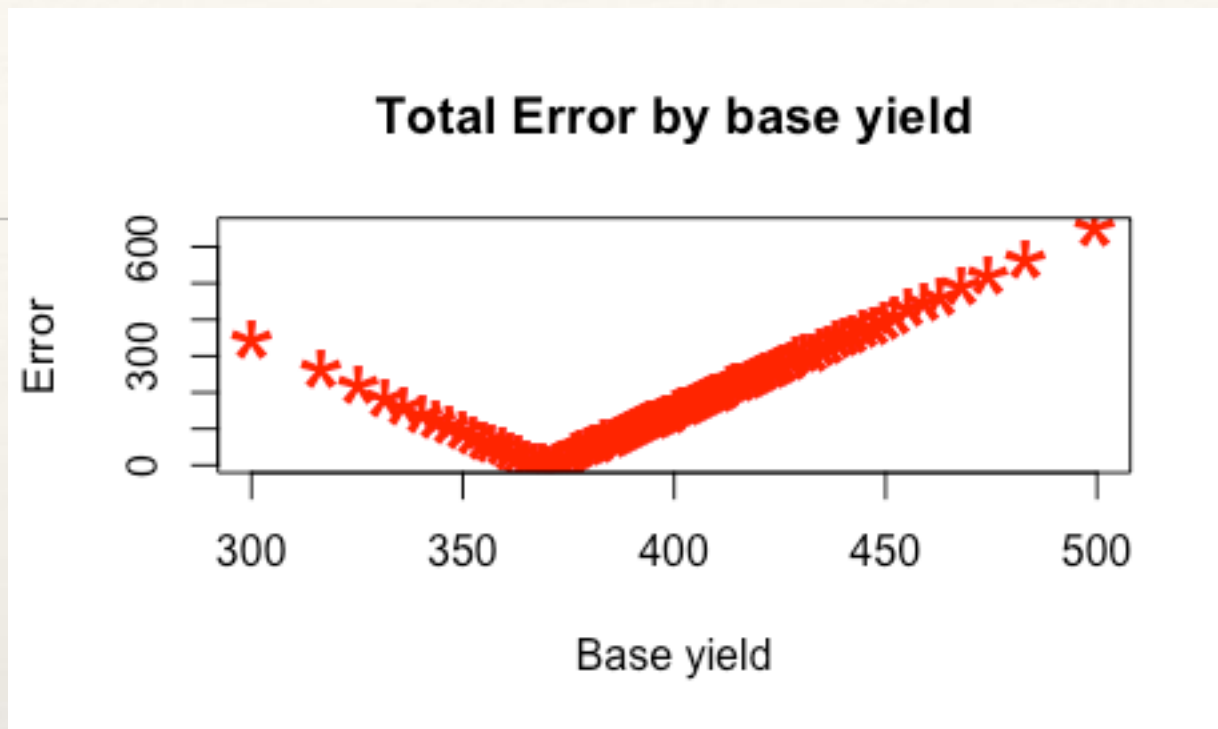
               tp*max.water - ts*abs(T-Topt) + base.yield )  

yield=pmax(yield,0)  

return(yield)  

})  

}
```



Note how different metrics help to define different parameters