

# Precipitation at SCAL

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## Monthly precipitation at SCAL from 2005 to 2010

```
#install.packages("plotly")  
#install.packages("Dodge")  
library(Dodge)  
library(ggplot2)  
#install.packages("magrittr")  
library(magrittr)  
library(plotly)
```

```
##  
## Attaching package: 'plotly'  
  
## The following object is masked from 'package:ggplot2':  
##  
##     last_plot  
  
## The following object is masked from 'package:stats':  
##  
##     filter  
  
## The following object is masked from 'package:graphics':  
##  
##     layout
```

```
library(dplyr)
```

```
##  
## Attaching package: 'dplyr'  
  
## The following objects are masked from 'package:stats':  
##  
##     filter, lag  
  
## The following objects are masked from 'package:base':  
##  
##     intersect, setdiff, setequal, union
```

```
library(lubridate)
```

```
##  
## Attaching package: 'lubridate'  
  
## The following objects are masked from 'package:dplyr':  
##  
## intersect, setdiff, union  
  
## The following objects are masked from 'package:base':  
##  
## date, intersect, setdiff, union
```

```
# Import csv file  
ScalWeather=read.csv("Weather Data.csv",header = TRUE)  
str (ScalWeather)
```

```
## 'data.frame': 2101 obs. of 12 variables:  
## $ Date : chr "4/1/2005" "4/2/2005" "4/3/2005" "4/4/2005" ...  
## $ Year : int 2005 2005 2005 2005 2005 2005 2005 2005 2005 2005 ...  
## $ Month : int 4 4 4 4 4 4 4 4 4 4 ...  
## $ Day : int 1 2 3 4 5 6 7 8 9 10 ...  
## $ Tair.max : num 14 21.4 26.5 25.7 19.9 ...  
## $ Tair.min : num -0.468 -2.437 3.787 3.563 10.707 ...  
## $ RHmax : num 94.9 80.6 80.2 91.2 99 ...  
## $ RHmin : num 26.6 24.9 17.6 32.3 66.4 ...  
## $ U3 : num 3.73 4.42 3.51 4.69 5.29 ...  
## $ Rain : num 0 0 0 0 19.1 ...  
## $ Radiation: num 270 260.5 213.6 265.7 80.1 ...  
## $ ET0 : num 3.5 5 5.6 5.6 2.2 4.3 4.3 3.5 4.8 0.7 ...
```

```
head(ScalWeather$Date)
```

```
## [1] "4/1/2005" "4/2/2005" "4/3/2005" "4/4/2005" "4/5/2005" "4/6/2005"
```

```
#Plot data
```

```
ggplot(ScalWeather, aes(x=Month,y=Rain, fill=Year))+ geom_bar(stat="identity", position = "stack") +  
  ggtitle("Daily Precipitation\n Clay Center") + labs( x= "Month", y= "Precipitation", fill = NULL)+  
  ggtitle("Daily Precipitation - SCAL\n 2005-2010") +facet_grid(Year~.)+theme_bw()
```

# Daily Precipitation – SCAL 2005–2010

