Textarea and Upload file formats for SacPAS Egg Growth model

http://www.cbr.washington.edu/sacramento/grow/

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Whether temperature or spawning data is uploaded or written into the Egg Growth UI, there are a few basic requirements and options. These are timeseries of values. Some rules are outlined first with examples below. Because spawning, egg development, and other modeled events traverse the calendar year, a two year window of time is used. It has 730 days. A "day" means the numerical "day-of-year" and the "date" is a month/day/year format. Thus, February 2, 2019 is identified as: day = 33 or date = 02/02/2019.   **Requirements and options | Tips | Examples** are shown below.

Requirements and options:

1. The day or date (in 1st column) and values are aligned on each row.
2. Columns should be separated by comma (recommended) space, or tab.
3. A header row (first row) is identified if it contains ANY letter.
4. Day and date formats can be used together but must be in chrolonological order.
5. Missing values at beginning or end of timeseries will be filled in with the nearest value.
6. Missing values otherwise are interpolated from the nearest adjacent values.
7. Ranges of days and/or values for temperatures can be formatted with a colon ":" to indicate the span of time or value, e.g.:

    •   In day column "91:181" means every day from April 1 to June 30 (in a non-leap year)

    •   In temperature column "12:15" means linear change from 12 to 15 degrees across the range of days in the first column

8. Dates can not use the range method.
9. Dates can be used with formats: mm/dd/yyyy or mm/dd. If dates *without* the year are provided, the egg growth page will attempt to process them and will make some assumptions about the years. Leading zero on a month or day is silently ignored.
10. Spawning data (redds or carcasses) must be single day (or date) and a value on each row, i.e. no ranges.
11. Units of °F or °C (default) are acceptable.

TIPS:

1. Try some very simple temperature profiles to get a feel for the methods before generating more nuanced temperature profiles.
2. If there are errors in the uploaded files: Edit the file. RESET the Egg Growth page. Upload file anew.
3. To see all your temperatures in the graphical outputs, Select a wide data range from the Analysis and Results Display controls.
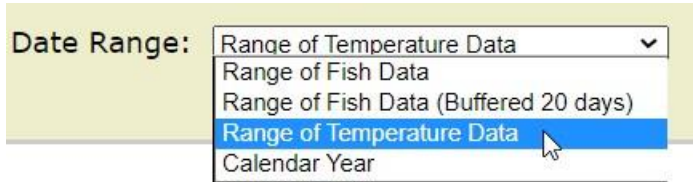
4. Be careful with spreadsheet applications that may try to interpret "/" and ":" symbols. The attributes of the column should be "text" so that these symbols are not interpreted as arithmetic division or ratio computations. View your files in a plain-text editor to verify the format is correct.
5. Try the SHINY app: https://cbr.washington.edu/shiny/EGGGROWTEMPS/ for a "pointand-click" method to graphically build a temperature timeseries!
6. After the run is completed and results are shown: Click the "download csv" link in upper left corner of the output page to have a record of all inputs and resuts.

Simple Examples:

	A	B
1	day	myTemp
2	8/9	12
3	8/10	13
4	8/11	13.1
5	8/12	13.2
6	8/13	13.3
7	8/14	13.4
8	8/15	13.5
9	8/16	13.6
10	8/17	13.7
11	8/18	13.8
12	8/19	13.9

	A	B	C
1	day	myTemp1	myTemp2
2	1:730	12	13
3			

```
Day,Carcass2012
284,2
285,3
291,9
292,20
```

	A	B	C
1	day	myTemp1	myTemp2
2	100:181	5:17	6:18
3	182:243	17	18
4	244:400	17:3	18:4

```
Day,My2012,My2013
284,2,0
285,3,0
289,0,4
290,0,2
291,9,0
292,20,0
296,0,24
```

```
day,value
10/03/2004,50
12/31/2004,51
1/1/2005,52
1/4/2005,53
```

Happy modeling!