

# How to use “Japan’s Satellite Monitoring system of Agrometeorological Information (JASMAI)”

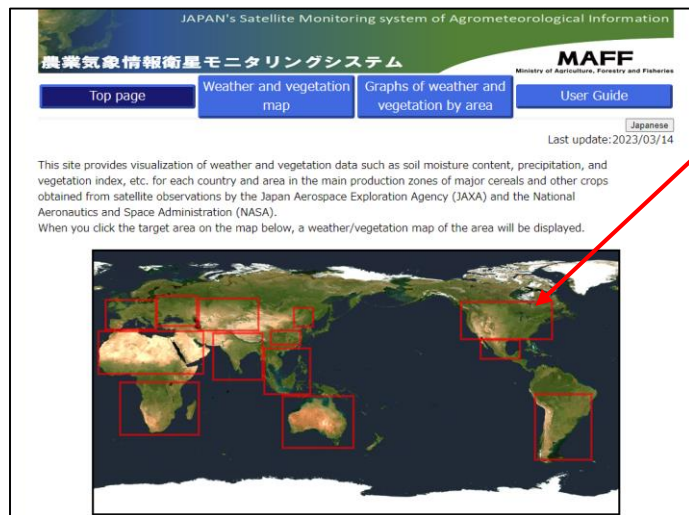
This site provides data on soil moisture content, precipitation, surface temperature, solar radiation, and vegetation index as well as their normal year-to-year ratios (differences) in the main production zones of major cereals. Followings are the instructions for using this site.

## I. How to view the weather and vegetation map

### 1. Select the area

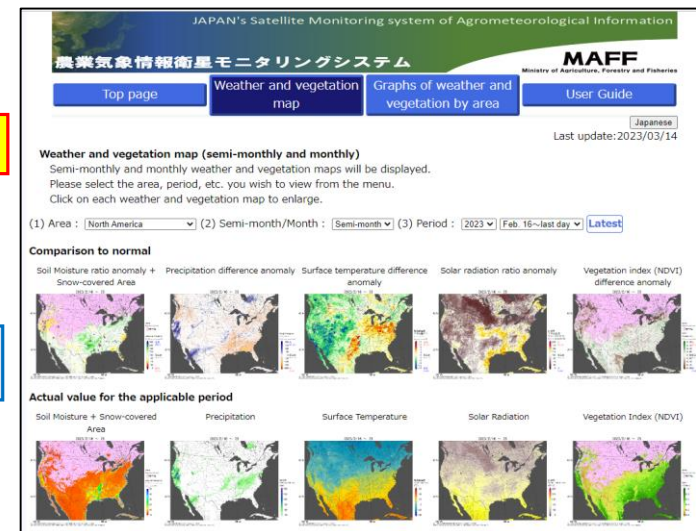
Select the area by the method (1) or (2) below.

- i) Click on any area in the red frame on the map of top page, then the screen transfer to the “Weather and vegetation map” of the selected area.



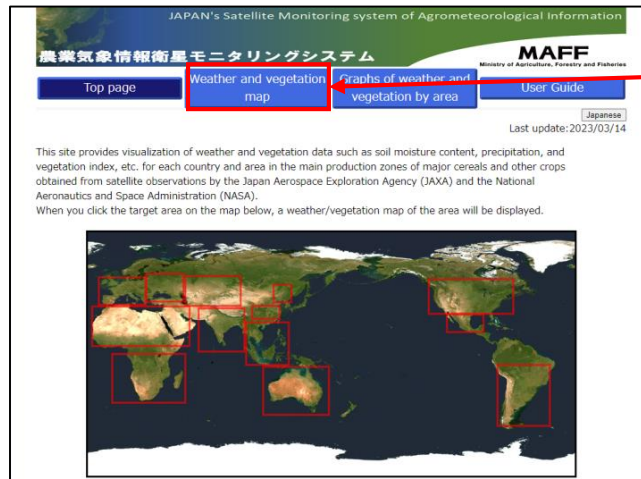
Click the area of red frame

Transfer to the “Weather and vegetation map”



(2) i) Click the "Weather and vegetation map" button on the top page, then the screen transfer to the "Weather and vegetation map".

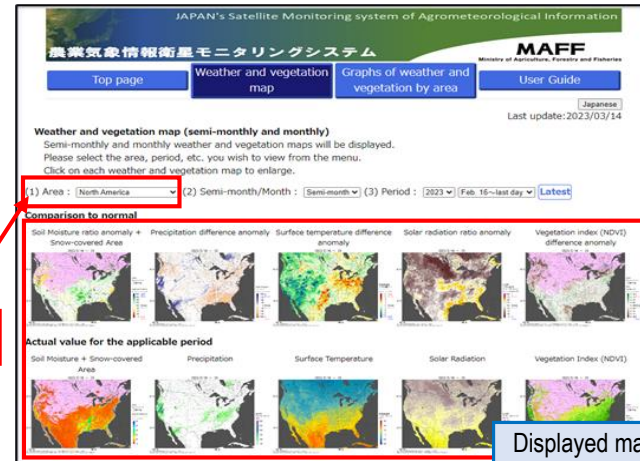
ii) Select any area in the "Area" pulldown menu, then the screen transfer to the "Weather and vegetation map" of the selected area.



i) Click the "Weather and vegetation map"

Transfer to the "Weather and vegetation map"

ii) Select any area



Displayed maps of selected area

## 2. Select period and map zooming

In the initial view, the latest semi-monthly average of weather and vegetation map for the selected area is displayed (in case of precipitation, semi-monthly total is displayed).

- i) Select any period in the "Period" pulldown menu, then the screen transfer to the weather and vegetation map for the selected period.
- ii) Select any duration in the "Semi-month/Month" pulldown menu, then the screen switch to the semi-monthly or monthly weather and vegetation map for the selected duration.
- iii) Click on each map, then the map can be enlarged.

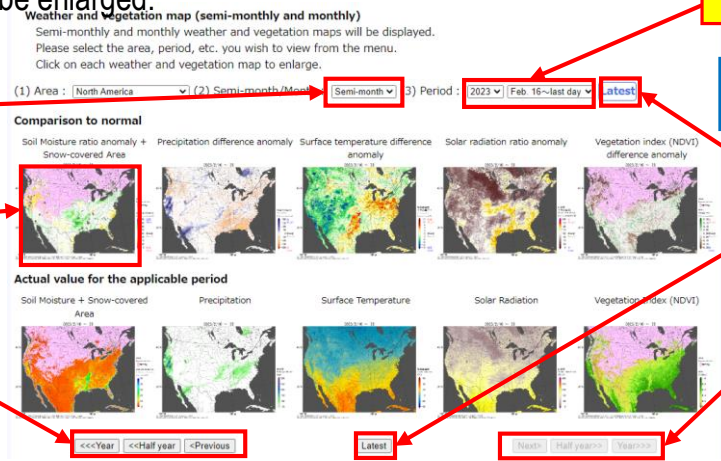
ii) Select any duration in the "Semi-month/Month"

iii) Click on each map to be enlarged

i) Select any period

Displayed maps of selected period

Displayed latest data



<<<Backward 1 year << Backward half year < Backward 1 period

Forward 1 period> Forward half year>> Forward 1 year >>>

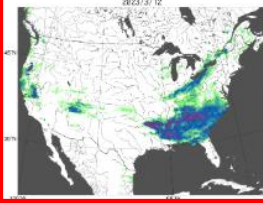
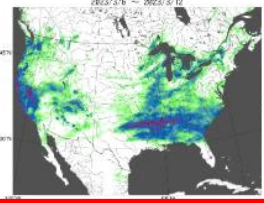
### 3. How to view Daily and weekly precipitation map

Daily and weekly precipitation map is available at the lower part of Weather and vegetation map page. Click on the "Period" selection box and select the desired period from the displayed calendar, then the map will be changed for the selected period.

**Daily and weekly precipitation map**

Period : 2023/03/12

Daily accumulated rainfall      Weekly accumulated rainfall


<the day before    Latest    next day>

※Note

- The weekly accumulated rainfall is the total amount of precipitation over the past 7 days, including the selected day.
- Images of the day will be updated and displayed after 14:00 Japan time.

<Backward previous day    Displayed latest data    Forward next day >

(Reference) Land cover map



※Note

- The land cover map is colored according to the percentage of cultivated land area calculated for each 10 km square mesh based on satellite data. (Please refer to [the User Guide \(Note 3\)](#) for more information.)

Click the period, then select any period in the displayed calendar

Displayed map of selected period

#### 【How to copy and save the map as a file.】

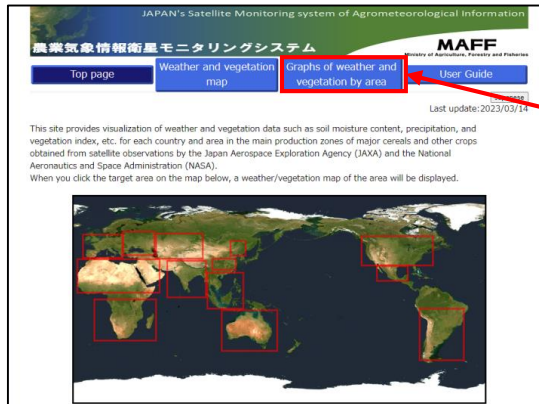
- In case of intending to copy and paste the map, right-click on the map before zooming-in and select "Copy", then past it as the image in "Figure" or "Bitmap" format.
- In case of intending to save the image file of map, right-click on the map before zooming in and select "Name and save image", then the image file can be saved in png format.



## II. How to view weather and vegetation graph and time series data by area

### 1. Select area

- i) Click "Graph of weather and vegetation by area" button on the top page, then the screen transfer to the "Graph of weather and vegetation by area" screen.
- 2) Select any area in the "Area" pulldown menu, then the map of selected area to be analyzed its name will be displayed.



Click the "Graph of weather and vegetation"

Transfer to the "Graph of weather and vegetation"

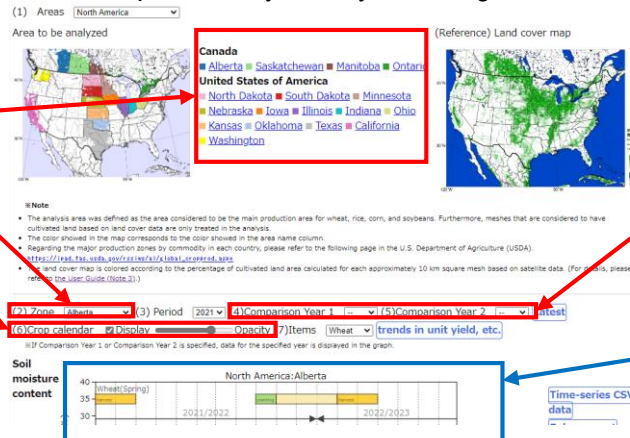
Select any area



Displayed maps of selected area and its zones

### 2. Select area and year

- i) Select any zone on the right side of map or in the "Zone" selection box at the lower part of the screen, then the weather and vegetation graph will be displayed showing the latest and normal year values of the zone. (Please make sure that the zone name will be changed to the selected zone.)
- ii) The weather and vegetation graph can be overlaid up to three years by selecting "Period" "Comparison Year 1" and "Comparison Year 2".



i) Select any zone

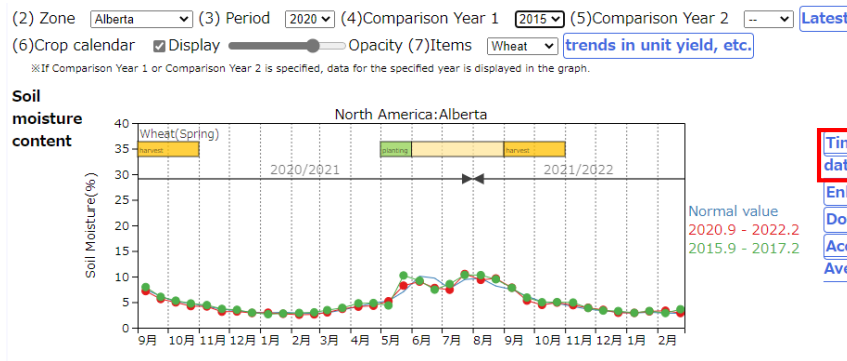
ii) Select any year and the year to be compared

It can be set the display/hide the crop calendar and its opacity level in the graph

The graphs switch to the selected area and the corresponding year.

### 3. Download time series data

Click "Time-series CSV data" button on the right side of each graph to download long-term time series data for each item in the displayed area.



Click the "Time-series CSV data"

#### 【How to operate the weather and vegetation graph by area】

- Click "Enlarge" button on the right side of each graph, then the graph will be enlarged.
- Click "Download (Image) button " on the right side of each graph, then the graph image will be saved in png format.
- Click period on the right side of each graph, then the graph of selected period will be appeared or hid.
- Hover the mouse over the point of the graph, then the value of that point will be appeared.
- At the bottom of the page, the graph can be moved backward or forwarded one year, half year, or one month.
- In case of intending to copy and pasting the graph, right-click on the graph before zooming in and select "Figure" or "Bitmap" format for pasting.

(This copy method is not available in Google Chrome.)

\*There is a case that numerical values will be outside of the display range of the graph. In this case, please download and use the csv data.

Solar radiation

North America: Alberta

Wheat (Spring)

2021/2022 2022/2023

Solar Radiation(W/m<sup>2</sup>)

Normal value  
2021.9 - 2023.2  
2015.9 - 2017.2

[Time-series CSV data](#)  
[Enlargement](#)  
[Download \(Image\)](#)  
[Accumulation · Averaging](#)

Hover the mouse to display the value

Enlarge the graph

Save the image file

Vegetation index (NDVI)

North America: Alberta

Wheat (Spring)

2021/2022 2022/2023

NDVI

Normal value  
2021.9 - 2023.2  
2015.9 - 2017.2

[Time-series CSV data](#)  
[Enlargement](#)  
[Download \(Image\)](#)  
[Accumulation · Averaging](#)

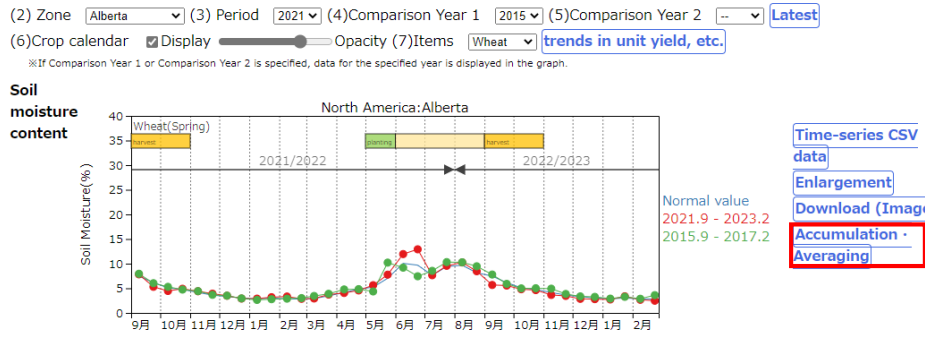
Change the year to be displayed

Forward 1 month> Forward half year>> Forward 1 year>>>

<<<Backward 1 year << Backward half year < Backward 1 period

## 4. Downloading accumulation and averaging data

Click "Accumulation/Averaging" button on the right side of each graph, then the Accumulation/Averaging graph will be appeared in a separate window.



Click the Accumulation/Averaging

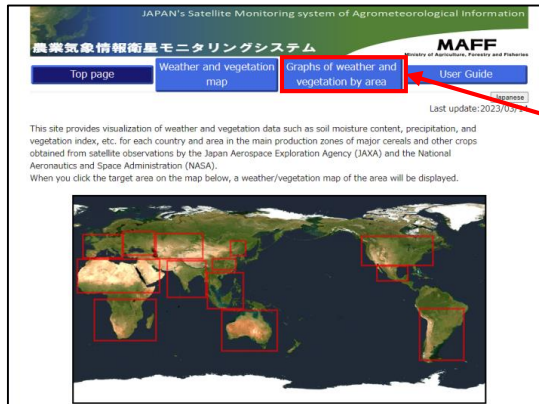
- In the upper left part of the graph, "Average" and "Accumulation" can be switched and "Duration" can be selected. For example, if set the "Duration" as "January ~ February", the graph will show the average and accumulation data from February to January of the following year.
- Click "CSV data" button at the upper right of the graph, then the data can be downloaded in csv format.
- Click "Download (Image)" button at the upper right of the graph, then the displayed graph data can be downloaded in png format.
- Hover the mouse over a point on the graph, then the numerical value of the point will be appeared.



### III. How to view trend of yield by Area

#### 1. Select area

- i) Click "Graph of weather and vegetation by area" button on the top page, then the screen transfer to the "Graph of weather and vegetation by area" screen.
- ii) Select any area in the "Area" selection pulldown menu, then a map to be analyzed and its name will be appeared.



Click the "Graph of weather and vegetation"

Transfer to the "Graph of weather and vegetation"

Select any area



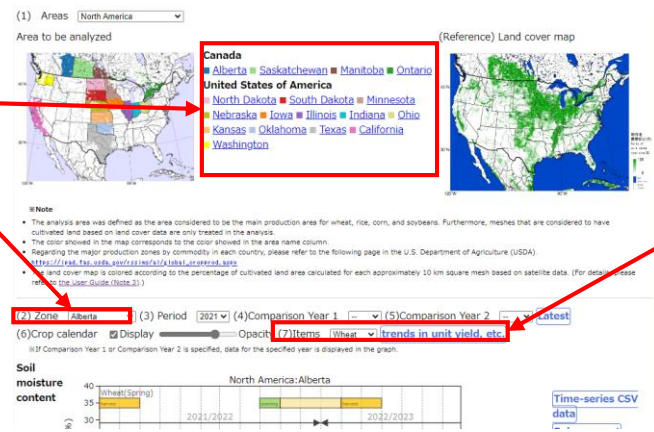
Displayed maps of selected area and its zones

#### 2. Select zone and year

- i) Select any zone from the zone name on the right side of the map or the area selection box at the bottom of the screen, and a weather/vegetation graph showing the latest year and normal year for the area will be displayed at the bottom of the screen. (This is the same operation as in II).
- ii) Select any desired crop (Wheat, Maize, Rice, Soybean) and click "Trend yield, etc." button, then the graph on trend of yield, etc. will be appeared in a separate window.

i) Select any zone

ii) Select any crop item and click "trend of yield"



### 3. Download data on yield, etc.

- Click "Time-series CSV data" button on the right side of each graph, then the data for each item in the displayed area can be downloaded.
- Click "Download (Image)" button on the right side of each graph, then the displayed graph can be downloaded in png format.
- Hover the mouse over the point of the graph, then the value of that point will be appeared.

※Please refer to the user manual for the countries and items for which data can be displayed.

