

# Welcome to OpenAg's Data API documentation!

## Summary

Resource	Operation	Description
Authentication	POST /api/verify_user_session/	Verify user's session
	POST /api/signup/	Create account
	POST /login/	Log in
Device	POST /api/get_current_device_status/	Get device status
	POST /api/get_device_notifications/	Device notifications
	POST /api/ack_device_notification/	ACK a notification
	POST /api/register/	Register device
Horticulture	POST /api/submit_horticulture_measurements/	Save horticulture measurements
	POST /api/daily_horticulture_measurements/	Save horticulture measurements
	POST /api/get_horticulture_daily_logs/	Get horticulture measurements
Recipe	POST /api/get_current_recipe_info/	Status
	POST /api/get_device_peripherals/	Get peripherals
	POST /api/submit_recipe_change/	Save recipe
	POST /api/get_recipe_by_uuid/	Recipe details
	POST /api/get_current_recipe/	Get current recipe
	POST /api/apply_to_device/	Run recipe, run
	POST /api/get_all_recipes/	Get all recipes
	POST /api/submit_recipe/	Save recipe
Sensor Data	POST /api/get_current_stats/	Current readings
	POST /api/get_device_images/	Image list
	POST /api/get_temp_details/	Temp/RH data
	POST /api/get_co2_details/	CO2 data
User	POST /api/save_user_profile_changes/	Update profile
	POST /api/get_user_devices/	Get user's devices
	POST /api/get_user_info/	User profile
Utility	POST /api/get_device_types/	Device types
	POST /api/get_plant_types/	Plant types
	POST /api/upload_images/	Upload an image
	GET /viewImage/(imageData)	Generate tweet

## API Details

**POST /api/submit\_horticulture\_measurements/**

Save horticulture measurements from a device.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – Device UUID in which plant was measured
  - **leaves\_count** (*string*) – Leaf count
  - **plant\_height** (*string*) – Plant height in cm

**Example response:**

---

```
{
  "message": "Measurements saved.",
  "response_code": 200
}
```

---

#### **POST /api/daily\_horticulture\_measurements/**

Save horticulture measurements for a device.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – Device UUID
  - **plant\_height** (*string*) – plant\_height
  - **leaf\_count** (*string*) – leaf\_count
  - **leaf\_colors** (*string*) – leaf\_colors
  - **leaf\_withering** (*string*) – leaf\_withering
  - **flavors** (*string*) – flavors
  - **root\_colors** (*string*) – root\_colors
  - **horticulture\_notes** (*string*) – horticulture\_notes
  - **submission\_name** (*string*) – submission\_name

**Example response:**

---

```
{
  "response_code": 200
}
```

---

#### **POST /api/get\_horticulture\_daily\_logs/**

Get horticulture measurements for a device.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – Device UUID

**Example response:**

---

```
{
  "leaf_count_results": [
    {"value": 3, "time": "2019-04-08 13:18:58"},
    {},
    {}
  ],
  "plant_height_results": [
    {"value": 2.5, "time": "2019-04-08 13:18:58"},
    {},
    {}
  ],
  "response_code": 200
}
```

---

#### **POST /api/save\_user\_profile\_changes/**

Update the users' profile information.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **email\_address** (*string*) – Users email address
  - **username** (*string*) – Users username (and login name)
  - **organization** (*string*) – The organization the user is associated with

### Example response:

---

```
{
  "profile_image": "previously saved profile image",
  "username": "saved name",
  "email_address": "saved email address",
  "organization": "saved organization",
  "response_code": 200
}
```

---

#### POST /api/get\_current\_device\_status/

Get the current status of a device.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – UUID of device to apply recipe to

### Example response:

---

```
{
  "progress": 0.0,
  "age_in_days": 0,
  "wifi_status": "N/A for this device",
  "current_temp": "N/A for this device",
  "runtime": 0,
  "response_code": 200
}
```

---

#### POST /api/get\_device\_notifications/

Get the list un-acknowledged notifications for this device.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – UUID of device to apply recipe to

### Example response:

---

```
{
  "results": {
    "notifications": [
      {
        "ID": "UUID",
        "type": "Done",
        "message": "Time to water your plant.",
        "created": "date created",
        "acknowledged": "date ackd",
        "URL": "URL to video notification",
      },
    ]
  }
  "response_code": 200
}
```

---

#### POST /api/get\_current\_recipe\_info/

Get status of the current recipe running on device.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **selected\_device\_uuid** (*string*) – UUID of device

### Example response:

---

```
{
  "expired": "True",
  "runtime": 4,
  "plant_type": "Basil",
  "recipe_uuid": "uuid",
  "response_code": 200
}
```

---

#### **POST /api/ack\_device\_notification/**

Acknowledge a device notification.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – UUID of device to apply recipe to
  - **ID** (*string*) – Notification ID to acknowledge

**Example response:**

---

```
{
  "response_code": 200
}
```

---

#### **POST /api/get\_device\_peripherals/**

Get peripherals. Used for recipe editor.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **selected\_peripherals** (*string*) – Comma separated list of peripheral UUIDs

**Example Response:**

---

```
{
  "results": [{
    "name": "Name",
    "sensor_name": "Sensor Name",
    "type": "Sensor Type",
    "color": "#FFAA00",
    "inputs": "inputs"
  }]
}
```

---

#### **POST /api/submit\_recipe\_change/**

Convert the users recipe selections into a properly formatted recipe to be saved and sent to the specified device. Not currently used.

- Request Headers:**
- **Accept** – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User's Token.
  - **device\_uuid** (*string*) – User's device.
  - **recipe\_state** (*string*) – JSON recipe options.

**Example response:**

---

```
{
  "message": "yay",
  "response_code": 200
}
```

---

#### **POST /api/verify\_user\_session/**

Verify the user's session token is still valid. .. :quickref: Authentication; Verify user's session

**Request Headers:**     • [Accept](#) – application/json  
**Request JSON Object:**     • **user\_token** (*string*) – User Token returned from the /login API.

**Example response:**

```
{
  "message": "Successful",
  "is_expired": "True",
  "response_code": 200
}
```

#### **POST /api/get\_recipe\_by\_uuid/**

Return all the details about this recipe and a users devices. Used to build an editor to modify this recipe.  
Not currently used.

**Request Headers:**     • [Accept](#) – application/json  
**Request JSON Object:**     • **user\_token** (*string*) – User Token returned from the /login API.  
                              • **recipe\_uuid** (*string*) – Recipe UUID to look up

**Example response:**

```
{
  "lots and lots of data": "not described until we implement the new recipe editor",
  "response_code": 200
}
```

#### **POST /api/get\_current\_recipe/**

Get current recipe running on device.

**Request Headers:**     • [Accept](#) – application/json  
**Request JSON Object:**     • **user\_token** (*string*) – User Token returned from the /login API.  
                              • **selected\_device\_uuid** (*string*) – UUID of device

**Example Response:**

```
{
  "results": {
    "format": "openag-phased-environment-v1",
    "version": "0.1.2",
    "creation_timestamp_utc":
      "2018-07-19T16:54:24:44Z",
    "name": "Get Growing - Basil Recipe",
    "uuid": "e6085be7-d496-43cc-8bd3-3a40a79e854e",
    "parent_recipe_uuid": "37dc0177-076a-4903-8557-c7586e42e90e",
    "support_recipe_uuids": null,
    "description": {
      "brief": "Grows basil.",
      "verbose": "Grows basil."
    }
  },
  "authors": [{ "name": "OpenAgTest", "uuid": "1e91ef7d-e9c2-4b0d-8904-f262a9eda70d", "
    "cultivars": [{ "name": "Basil/Sweet Basil", "uuid": "02b0328f-ff19-44a8-a8b8-cd13cf6
    "cultivation_methods": [{ "name": "Shallow Water Culture", "uuid": "45fa509b-2008-410
    "environments": { "standard_day": {
      "name": "Standard Day",
      "spectrum_key": "flat",
      "light_spectrum_nm_percent": { "380-399": 2.03, "400-499": 20.3,
      "light_ppfd_umol_m2_s": 300,
      "light_illumination_distance_cm": 10,
      "air_temperature_celcius": 22
    }
  },
}
```

```

        "standard_night": {
            "name": "Standard Night",
            "spectrum_key": "off",
            "light_spectrum_nm_percent": {"380-399": 0.0, "400-499": 0.0, "500-599": 0.0, "600-699": 0.0, "700-799": 0.0, "800-899": 0.0, "900-999": 0.0},
            "light_ppfd_umol_m2_s": 0,
            "light_illumination_distance_cm": 10,
            "air_temperature_celcius": 22
        },
        "cold_day": {"name": "Cold Day", "spectrum_key": "flat", "light_spectrum_nm_percent": {"380-399": 0.0, "400-499": 0.0, "500-599": 0.0, "600-699": 0.0, "700-799": 0.0, "800-899": 0.0, "900-999": 0.0}, "light_ppfd_umol_m2_s": 0, "light_illumination_distance_cm": 10, "air_temperature_celcius": 22},
        "frost_night": {"name": "Frost Night", "spectrum_key": "off", "light_spectrum_nm_percent": {"380-399": 0.0, "400-499": 0.0, "500-599": 0.0, "600-699": 0.0, "700-799": 0.0, "800-899": 0.0, "900-999": 0.0}, "light_ppfd_umol_m2_s": 0, "light_illumination_distance_cm": 10, "air_temperature_celcius": 22},
    },
    "phases": [
        {
            "name": "Standard Growth",
            "repeat": 29,
            "cycles": [
                {"name": "Day", "environment": "standard_day", "duration": 12},
                {"name": "Night", "environment": "standard_night", "duration": 12}
            ],
        },
        {
            "name": "Frosty Growth",
            "repeat": 1,
            "cycles": [
                {"name": "Day", "environment": "cold_day", "duration": 12},
                {"name": "Night", "environment": "frost_night", "duration": 12}
            ],
        }
    ]
},
"response_code": 200

```

---

#### POST /api/get\_current\_stats/

Get the current sensor readings.

- Request Headers:**
- [Accept](#) – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **selected\_device\_uuid** (*string*) – UUID of device

**Example Response:**

```

{
  "results": {
    "current_co2": "23",
    "current_temp": "27",
    "current_rh": "50.1",
    "current_h2o_ec": "4.4",
    "current_h2o_ph": "7.1",
    "current_h2o_temp": "25.0"
  },
  "response_code": 200
}

```

---

#### POST /api/get\_device\_images/

Returns all images associated with device.

- Request Headers:**
- [Accept](#) – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – Device UUID

**Example response:**

```

{
  "image_urls": [ "URL1", "URL2" ],
  "response_code": 200
}

```

---

#### POST /api/get\_temp\_details/

Get historical temperature (and humidity) time series data.

- Request Headers:**
- [Accept](#) – application/json

**Request JSON Object:**

- **user\_token** (*string*) – User Token returned from the /login API.
- **selected\_device\_uuid** (*string*) – Device UUID to get the Temp/RH data for

**Example response:**

---

```
{
  "results": {
    "RH": [
      {"value": "28.0", "time": "2019-05-08T18:39:53Z"},
      {"value": "29.0", "time": "2019-05-08T18:29:52Z"}],
    "temp": [
      {"value": "25.0", "time": "2019-05-08T18:29:52Z"},
      {"value": "24.0", "time": "2019-05-08T18:24:52Z"}]
  },
  "response_code": 200
}
```

---

**POST /api/get\_user\_devices/**

Get all devices associated with a user account.

**Request Headers:**

- **Accept** – multipart/form-data

**Request JSON Object:**

- **user\_token** (*string*) – User Token returned from the /login API.

**Example Response:**

---

```
{
  "results": {
    "devices": [
      {
        "device_uuid": "EDU-9F2BEEEF-ac-de-48-00-11-22",
        "device_notes": "",
        "device_type": "EDU",
        "device_reg_no": "9F2BEEEF",
        "registration_date": "2019-04-29 20:09:10",
        "user_uuid": "d2c7fe68-e857-4c4a-98b4-7e88154ddaa6",
        "permissions": "control",
        "device_name": "Steve's Mac",
        "peripherals": ""
      },
      {
        "device_uuid": "EDU-F3D9051D-b8-27-eb-0a-43-ee",
        "device_notes": "",
        "device_type": "EDU",
        "device_reg_no": "F3D9051D",
        "registration_date": "2019-04-08 13:18:58",
        "user_uuid": "d2c7fe68-e857-4c4a-98b4-7e88154ddaa6",
        "permissions": "control",
        "device_name": "Green-Frog-Bates",
        "peripherals": ""
      }
    ],
    "user_uuid": "d2c7fe68-e857-4c4a-98b4-7e88154ddaa6"
  },
  "response_code": 200
}
```

---

**POST /api/get\_device\_types/**

Get a list of all device types.

**Request Headers:**

- **Accept** – application/json

**Request JSON Object:**

- **user\_token** (*string*) – User Token returned from the /login API.

### Example Response:

---

```
{
  "results": [{
    "name": "EDU",
    "device_type_id": "Type-UUID",
    "peripherals": ["P1-UUID", "P2-UUID", "P3-UUID"]
  }],
  "response_code": 200
}
```

---

### POST /api/apply\_to\_device/

Run a recipe on a device.

- Request Headers:**
- [Accept](#) – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **device\_uuid** (*string*) – UUID of device to apply recipe to
  - **recipe\_uuid** (*string*) – UUID of recipe to run

### Example response:

---

```
{
  "response_code": 200
}
```

---

### POST /api/get\_co2\_details/

Return a time series of historical co2 data.

- Request Headers:**
- [Accept](#) – application/json
- Request JSON Object:**
- **user\_token** (*string*) – User Token returned from the /login API.
  - **selected\_device\_uuid** (*string*) – Device UUID to get the CO2 data for

### Example response:

---

```
{
  "results": [
    { "value": "33246.0", "time": "2019-05-08T16:44:39Z" },
    { "value": "33244.0", "time": "2019-05-08T16:39:39Z" }
  ],
  "response_code": 200
}
```

---

### POST /api/get\_plant\_types/

Get known plant types. For the recipe editor.

### Example Response:

---

```
{
  "results": [
    {
      "name": "Basil",
      "variants": "Sweet Basil, Purple Basil"
    },
    {
      "name": "Lettuce",
      "variants": "Iceberg, Butterhead, Rocket, Mizuna, Romaine"
    }
  ],
  "response_code": 200
}
```

---



## POST /api/get\_all\_recipes/

Retrieve all recipes for a user account.

**Request Headers:**

- **Accept** – application/json

**Request JSON Object:**

- **user\_token** (*string*) – User Token returned from the /login API.

**Example response:**

---

```
{
  "results": ["recipe", "recipe"],
  "devices": ["device", "device"],
  "user_uuid": "UUID-For-User",
  "response-code": 200
}
```

---

**Example Recipe:**

---

```
{
  "name": "Get Growing - Basil Recipe",
  "description": "Grows basil.",
  "recipe_uuid": "e6085be7-d496-43cc-8bd3-3a40a79e854e",
  "recipe_json": {"Recipe in": "JSON format"},
  "user_uuid": "1e91ef7d-e9c2-4b0d-8904-f262a9eda70d",
  "image_url": "http://via.placeholder.com/200x200",
  "saved": true
}
```

---

**Example Device:**

---

```
{
  "device_name": "Green-Frog-Bates",
  "device_notes": "",
  "device_reg_no": "F3D9051D",
  "device_type": "EDU",
  "device_uuid": "EDU-F3D9051D-b8-27-eb-0a-43-ee",
  "registration_date": "2019-04-08 13:18:58",
  "user_uuid": "d2c7fe68-e857-4c4a-98b4-7e88154ddaa6"
}
```

---

## POST /api/submit\_recipe/

Convert the users recipe selections into a properly formatted recipe to be saved and sent to the specified device. Not currently used.

**Request Headers:**

- **Accept** – application/json

**Request JSON Object:**

- **user\_token** (*string*) – User's Token.
- **device\_uuid** (*string*) – User's device.
- **state** (*string*) – JSON recipe options.
- **image\_url** (*string*) – URL for a picture of the plant this recipe grows.

**Example response:**

---

```
{
  "message": "yay",
  "response_code": 200
}
```

---

## POST /api/upload\_images/

Upload an image for use in the user profile and recipe.

**Request Headers:**

**Request JSON Object:**

- **Accept** – multipart/form-data
- **file** (*string*) – Form posted base64 encoded binary file
- **type** (*string*) – ‘user’ or ‘recipe’
- **user\_token** (*string*) – User Token returned from the /login API.

**Example response:**

---

```
{
  "url": "public URL of the uploaded image",
  "message": "done",
  "response_code": 200
}
```

---

**POST /api/get\_user\_info/**

Get user profile information.

**Request Headers:**

- **Accept** – application/json

**Request JSON Object:**

- **user\_token** (*string*) – User Token returned from the /login API.

**Example Response:**

---

```
{
  "profile_image": null,
  "username": "exampleuser",
  "email_address": "user@example.org",
  "organization": "Example Foundation",
  "response_code": 200
}
```

---

**POST /api/register/**

Register a Food Computer and associate it with a user account.

**Request Headers:**

- **Accept** – application/json

**Request JSON Object:**

- **user\_token** (*string*) – User Token, to associate this device with
- **device\_name** (*string*) – User specified name for the device (‘mine!’)
- **device\_reg\_no** (*string*) – Key from the device registration process
- **device\_notes** (*string*) – User specified notes about the device (‘blue’)
- **device\_type** (*string*) – PFC\_EDU, FS, etc.

**Example response:**

---

```
{
  "response_code": 200
}
```

---

**POST /api/signup/**

Create a user account.

**Request Headers:**

- **Accept** – application/json

**Request JSON Object:**

- **username** (*string*) – Users login name
- **email\_address** (*string*) – Users email address
- **password** (*string*) – Users password
- **organization** (*string*) – Users organization (self chosen)

**Example response:**

---

```
{  
  "response_code": 200  
}
```

---

### POST /login/

Log a user into this API, returns a session token.

- Request Headers:**
- [Accept](#) – application/json
- Request JSON Object:**
- **username** (*string*) – Users username (from the /api/signup API call)
  - **password** (*string*) – Users password (from the /api/signup API call)

### Example response:

---

```
{  
  "user_uuid": "Users UUID from the registration process",  
  "user_token": "token string",  
  "is_admin": False  
  "message": "Login Successful"  
  "response_code": 200  
}
```

---

### GET /viewImage/(imageData)

Generate a small image page for tweeting. Returns HTML.

- Request Headers:**
- [Accept](#) – application/json
- Request JSON Object:**
- **i** (*string*) – Image URL to show in the tweet.
  - **t** (*string*) – Text to display in the tweet.

## Search

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[Search Page](#)