



Fieldin

API

v1.0.9

Introduction	4
Metadata Endpoints	5
Devices	5
Products	6
Product Types	7
Companies	9
Sprayer Models	10
Pests	11
Spraying Against types	12
Crops	13
Cultivars	14
Rootstocks	15
Blocks	16
Units	19
Groups	20
Contractors	22
Spray Tasks	23

Version history

1.0.0	<ul style="list-style-type: none"> ● Initial release
1.0.1	<ul style="list-style-type: none"> ● Task status update
1.0.2	<ul style="list-style-type: none"> ● Added <i>sprayer models</i> from recommendation to tasks endpoint ● Added <i>against information</i> from recommendation to tasks endpoint ● Added endpoints to get sprayer models, against types and pests for information above
1.0.3	<ul style="list-style-type: none"> ● Added companies endpoint ● Added <i>company_id</i> to blocks and devices ● Added <i>cultivar_ids</i> to tasks
1.0.4	<ul style="list-style-type: none"> ● New endpoints to get data by specific company (blocks, tasks, devices)
1.0.5	<ul style="list-style-type: none"> ● Added <i>sprayer_output_unit_id</i> to tasks
1.0.6	<ul style="list-style-type: none"> ● Added contractor property to devices endpoint
1.0.7	<ul style="list-style-type: none"> ● Added product types endpoint ● Added <i>product_type</i> to products endpoint
1.0.8	<ul style="list-style-type: none"> ● Added groups endpoint ● Added contractors endpoint
1.0.9	<ul style="list-style-type: none"> ● Added rootstock endpoint ● Added plantings section in block endpoint ● Added plantings section in task showing the plantings that were sprayed in the block during the task ● Added the amount sprayed per product in the task

Introduction

In order to better understand the imported spray log, you should first import all the account metadata. Please notice that data may change from time to time and you are required to query the data every 24 hours.

- ALL requests should be made with GET method
- ALL requests should have 'accept: application/json' header

Each endpoint requires the same parameters:

Name	Description	Mandatory
api-key	The API key	Yes

Metadata Endpoints

Devices

Use this endpoint to bring all the attached devices to the account. An attached device is a device that Fieldin sensor is installed on. It can be a tractor, a vehicle, autonomous sprayer, etc.

Endpoint: <https://api.fieldintech.com/external/1.0.0/devices>

for a specific device

Endpoint specific params:

Name	Description	Mandatory
device_code	The device code (BG) in devices_new table	

Or for specific company

https://api.fieldintech.com/external/1.0.0/companies/{company_id}/devices

Response:

Name	Type	Description
id	int	Device ID
alias	string	Device alias
company_id	int	ID of company device belongs to
contractor	int	Indicates if device is contractor's device or belonging to company. 1 - Contractor 0 - Company Note: Available only for devices by company endpoint
contractor_id	int	In case the contractor value is 1, returns the ID of the contractor company ID that the device belongs to

Response example:

```
[
  {
    "id": 1,
    "alias": "57-386-68"
  },
  {
    "id": 2,
    "alias": "55-412-51"
  },
  {
    "id": 3,
    "alias": "57-146-68"
  }
]
```

Products

Use this endpoint to bring all the products the account is using. Notice that attached products might change from time to time.

Endpoint: <https://api.fieldintech.com/external/1.0.0/products>

Response:

Name	Type	Description
id	int	Product ID
token	string	Product token
name	string	Translated token to account language, if exists
product_type	array	Array of product types

Response example:

```
[
  {
    "id": 253,
    "token": "abatzon",
    "name": "Avatzon"
  },
  {
    "id": 920,
    "token": "0-0-0 QMIN ZINC 7.5% 2X2.5GA",
    "name": "0-0-0 QMIN ZINC 7.5% 2X2.5GA"
  }
]
```

Product Types

Use this endpoint to bring all the products the account is using. Notice that attached products might change from time to time.

Endpoint: https://api.fieldintech.com/external/1.0.0/product_types

Response:

Name	Type	Description
id	int	Type id
name	string	Translated token to account language, if exists

Response example:

```
[
  {
    "id": 1,
    "name": "diseases"
  },
  {
    "id": 2,
    "name": "pests"
  }
]
```


Companies

Use this endpoint to bring all the companies the account has access to.

Endpoint: <https://api.fieldintech.com/external/1.0.0/companies>

Response:

Name	Type	Description
id	int	Company ID
name	string	Company name
som	string	Company SOM
lang	string	Company language in two letter code

Response example:

```
[
  {
    "id": 1,
    "name": "Fruits & Flowers Co",
    "som": "metric",
    "lang": "he"
  },
  {
    "id": 5,
    "name": "John & sons",
    "som": "imperial",
    "lang": "en"
  }
]
```

Sprayer Models

Use this endpoint to bring all the sprayer models. Sprayers are a closed list of spraying machinery that can be attached to a device.

Endpoint: https://api.fieldintech.com/external/1.0.0/sprayer_models

Response:

Name	Type	Description
id	int	Model ID
token	string	Model token
name	string	Translated token to account language, if exists

Response example:

```
[
  {
    "id": 1,
    "token": "2000 liter",
    "name": "2000 ליטר"
  },
  {
    "id": 2,
    "token": "3000 liter",
    "name": "3000 ליטר"
  }
]
```

<https://www.google.com/url?q=https://api-qa.fieldintech.com/external/1.0.0/tasks?api-key%3D3bd19186cab36e44ae727973918a37af21d8377%26from%3D1516399200&sa=D&source=hangouts&ust=1576585612931000&usg=AFQjCNGnGuMISYDEoXYWdpmxw6xd79VKQg>
Pests

Use this endpoint to bring all the pests.

Endpoint: <https://api.fieldintech.com/external/1.0.0/pests>

Response:

Name	Type	Description
id	int	Pest ID
token	string	Pest token
name	string	Translated token to account language, if exists

Response example:

```
[
  {
    "id": 1,
    "token": "Lobesia botrana",
    "name": "Grapevine Moth"
  },
  {
    "id": 2,
    "token": "powdery_mildew",
    "name": "Powdery Mildew"
  },
  {
    "id": 4,
    "token": "Cicadoidea",
    "name": "Cicadoidea"
  }
]
```

Spraying Against types

Use this endpoint to bring all the types of pests as targets of spraying.

Endpoint: https://api.fieldintech.com/external/1.0.0/against_types

Response:

Name	Type	Description
id	int	Type ID
token	string	Type token
name	string	Translated token to account language, if exists

Response example:

```
[
  {
    "id": 1,
    "token": "pest",
    "name": "Pest"
  },
  {
    "id": 2,
    "token": "disease",
    "name": "Disease"
  },
  {
    "id": 3,
    "token": "weed",
    "name": "Weed"
  }
]
```

Crops

Use this endpoint to bring all the crops. Notice that attached cultivars might change from time to time.

Endpoint: <https://api.fieldintech.com/external/1.0.0/crops>

Response:

Name	Type	Description
id	int	Crop ID
token	string	Crop token
name	string	Translated token to account language, if exists

Response example:

```
[
  {
    "id": 3,
    "token": "Almonds",
    "name": "Almonds"
  },
  {
    "id": 5,
    "token": "Apples",
    "name": "Apples"
  },
  {
    "id": 7,
    "token": "Avocado",
    "name": "Avocado"
  }
]
```

Cultivars

Use this endpoint to bring all the cultivars. Notice that attached cultivars might change from time to time.

Endpoint: <https://api.fieldintech.com/external/1.0.0/cultivars>

Response:

Name	Type	Description
id	int	Cultivar ID
token	string	Cultivar token
name	string	Translated token to account language, if exists
crop_id	int	ID of crop

Response example:

```
[
  {
    "crop_id": 1,
    "id": 1,
    "token": "cabernet_sauvignon",
    "name": "Cabernet Sauvignon"
  },
  {
    "crop_id": 1,
    "id": 4,
    "token": "french",
    "name": "Franc"
  }
]
```

Rootstocks

Use this endpoint to bring all the rootstocks (which is a sub group of cultivars). Notice that the attached rootstocks might change from time to time.

Endpoint: <https://api.fieldintech.com/external/1.0.0/rootstocks>

Response:

Name	Type	Description
id	int	Rootstock ID (cultivar id)
token	string	Rootstock token
name	string	Translated token to account language, if exists
crop_id	int	ID of crop

Response example:

```
[
  {
    "crop_id": 2,
    "id": 624,
    "token": "Lima",
    "name": "Lima"
  },
  {
    "crop_id": 2,
    "id": 623,
    "token": "Genova",
    "name": "Genova"
  }
]
```

Blocks

Use this endpoint to bring all the blocks the account has.

Endpoint: <https://api.fieldintech.com/external/1.0.0/polygons>

Or for specific company

https://api.fieldintech.com/external/1.0.0/companies/{company_id}/polygons

Or for specific group

https://api.fieldintech.com/external/1.0.0/groups/{group_id}/polygons

Response:

Name	Type	Description
id	int	Block ID
company_id	int	ID of company block belongs to
name	string	Block name
crop_id	int	ID of crop. <i>Each block can have only one crop - however on rare occasions a block can have multiple cultivars of different crops although only one of them will be the main crop.</i>
cultivar_ids	array	Ids of cultivars
last_update	date (utc)	Date of block's last update
archive_date	date (utc)	In case block was archived, will contain the archive date, null otherwise
plantings	array	id,cultivar_id,percentage,planting_year,rootstock_id from plantings table for this block

Response example:

```
[
  {
    id: 204,
    company_id: 11,
    name: "שדה תעופה 4",
    crop_id: 5,
    cultivar_ids: [
      "133",
      "135",
      "136",
      "138",
    ],
    last_update:"2018-03-26 12:25:02",
    archive_date:"2018-03-26 12:25:02",
    plantings: [
      {
        id: 1332,
        cultivar_id: 135,
        percentage: "66.00",
        planting_year: "1990",
        rootstock_id: 132,
      },
      {
        id: 1333,
        cultivar_id: 136,
        percentage: "14.00",
        planting_year: "1990",
        rootstock_id: 132,
      },
      {
        id: 1334,
        cultivar_id: 138,
        percentage: "5.00",
        planting_year: "0000",
        rootstock_id: 132,
      },
    ],
  }
]
```

```
{
  id: 204,
  cultivar_id: 133,
  percentage: "15.00",
  planting_year: "1990",
  rootstock_id: 132,
},
],
}
```

```
]
```

Units

Use this endpoint to bring all the units.

Endpoint: <https://api.fieldintech.com/external/1.0.0/units>

Response:

Name	Type	Description
id	int	Unit ID
token	string	Unit Token
description	string	Full name in English
name	string	Translated token to account language, if exists

Response example:

```
[
  {
    "id": 1,
    "token": "percent",
    "type_id": 1,
    "description": "%",
    "name": "%"
  },
  {
    "id": 2,
    "token": "kpd",
    "type_id": 2,
    "description": "kg/dunam",
    "name": "kg/dunam"
  }
]
```

Groups

Use this endpoint to bring all the groups the account has access to.

A group is an entity containing one or more blocks from the same company.

A block can be attached to several groups.

Endpoint: <https://api.fieldintech.com/external/1.0.0/groups>

Response:

Name	Type	Description
id	int	Group ID
name	string	Group name
company_id	int	Company ID

Response example:

```
[
  {
    "id": 1,
    "name": "WO - Pistachio bankouts",
    "company_id": "18"
  }
]
```

Or for specific company

https://api.fieldintech.com/external/1.0.0/companies/{company_id}/groups

Response:

Name	Type	Description
id	int	Group ID
name	string	Group name
company_id	int	Company ID

Response example:

```
[
  {
    "id": 1,
    "name": "WO - Pistachio bankouts",
    "company_id": "18"
  }
]
```

Contractors

Use this endpoint to bring all the contractors the account has access to.

Endpoint: https://api.fieldintech.com/external/1.0.0/companies/{company_id}/contractors

Response:

Name	Type	Description
id	int	Company ID
name	string	Company name

Response example:

```
[
  {
    "id": 1,
    "name": "Fruits & Flowers Co"
  },
  {
    "id": 5,
    "name": "John & sons"
  }
]
```

Spray Tasks

Use the tasks endpoint to get the tasks performed on specific dates:

Endpoint specific params:

Name	Description	Mandatory
from	The unix_timestamp to bring data from (inclusive). It will bring all spray tasks that changed status from this time onward.	Yes
to	The unix_timestamp to bring data to. The end time for the spray tasks.	no
som	System of measurement. Possible values: 2 - Metric (default) 4 - usc	No

Endpoint: <https://api.fieldintech.com/external/1.0.0/tasks>

Or for specific company

https://api.fieldintech.com/external/1.0.0/companies/{company_id}/tasks

Or for specific group [https://api](https://api.fieldintech.com/external/1.0.0/groups/{group_id}/tasks)

[i.fieldintech.com/external/1.0.0/groups/{group_id}/tasks](https://api.fieldintech.com/external/1.0.0/groups/{group_id}/tasks)

Response:

Name	Type	Description
id	int	The unique task number in Fieldin DB. Since the time of the task might change, you should always use the task ID in order to validate you are updating the correct task.
block_id	int	The block ID

status	int	The status of the task: < 3 – not started yet 3 – in progress 5 – close. completed 6 – close. not executed 7 – close. not completed
task_start	int	The time the task started, or if the task hasn't started or was closed without being performed, the Due From date.
task_end	int	The last time a device was working on the task. If the task hasn't started or was closed and without being performed, the Due To date.
sprayer_output	float	The spray output (i.e. volume per area) from the spray recommendation, if available
spray_output_unit_id	int	The spray output unit ID
spray_output_unit	string	The spray output unit
task_products	array	Array of products used
task_products.id	int	Product ID according to products metadata
task_products.concentration	float	A number
task_products.concentration_unit	int	Product concentration unit according to the unit metadata
task_products.amount_sprayed_by_sprayed_area	float	The amount of product sprayed in the relevant units (e.g kg)
task_products.amount_sprayed_by_sprayed_area_unit	string	The units of the task product that was sprayed in the area mentioned above
device_ids	array	The devices that have taken part in the spray according to the devices metadata. Note: Sometimes a grower might use an external device (a contractor) that has Fieldin installed but is not in the account

		devices metadata. In this case, you will only get information about the device if you query the endpoint per company.
against	array	Array of spray targets from the spray recommendation
against.targetId	int	Pest ID
against.againstTypeId	int	Against type ID
sprayer_models	array	Array of sprayers recommended for that task
sprayer_models.id	int	Sprayer model ID. If id is 0 it means custom sprayer that the user entered and will not have related sprayer model.
sprayer_models.volume	float	Sprayer volume (in liters). Usually the default value of the sprayer, but can be a custom value the user entered in the spray recommendation.
fragments	array	Array of sprayings performed by devices to complete the task. Each fragment represents one device drive in a specific period of time. A task can hold one or more fragments of one or more devices.
fragments.device_id	int	Device ID
fragments.time_start	int	Unix_timestamp of work start time
fragments.time_end	int	Unix_timestamp of work end time
fragments.properties	object	Key-value pairs of data relevant for the specific work
fragments.properties.avg_humidity	float	Avg humidity
fragments.properties.min_humidity	float	Min humidity
fragments.properties.sprayed_area	float	Sprayed area

fragments.properties.avg_wind_speed	float	Avg wind speed
fragments.properties.avg_wind_speed_units	string	The units of the Avg wind speed
fragments.properties.max_wind_speed	float	Max wind speed
fragments.properties.max_wind_speed_units	string	The units of the Max wind speed
fragments.properties.min_wind_speed	float	Min wind speed
fragments.properties.min_wind_speed_units	string	The units of the Min wind speed
fragments.properties.avg_temperature	float	Avg temperature
fragments.properties.avg_temperature_units	string	The units of the Avg temperature
fragments.properties.max_temperature	float	Max temperature
fragments.properties.max_temperature_units	string	The units of the Max temperature
fragments.properties.min_temperature	float	Min temperature
fragments.properties.min_temperature_units	string	The units of the Min temperature
cultivar_ids	array	Array of cultivars sprayed in the relevant task. May be all or part of all cultivars defined for the block.
plantings	array	Array of polygon's plantings sprayed in the relevant task.

Response example:

```
[
{
  id: 187832,
  block_id: 20091,
  task_start: 1540674008,
  task_end: 1540764014,
  sprayer_output: 130,
  device_ids: [],
  sprayer_models: [
    {
      id: 3,
      volume: 1500,
    }
  ],
  against: [
    {
      targetId: 143,
      againstTypeId: 2,
    }
  ],
  status: 6,
  properties: {},
  "fragments": [
    {
      "id": 365379,
      "task_id": 321148,
      "device_id": 3062,
      "time_start": 1569679090,
      "time_end": 1569691320,
      "properties": {
        "avg_humidity": 61.363636363,
        "max_humidity": 77,
        "min_humidity": 38,
        "sprayed_area": 15.86,
        "avg_wind_speed": 17.636360724,
        "max_wind_speed": 20.999988,
        "min_wind_speed": 14.000004,
        "avg_temperature": 18.181818181,
        "max_temperature": 23,
        "min_temperature": 16
      },
      "driver_id": 0
    }
  ],
  sprayer_output_unit: "l/dunam",
  sprayer_output_unit_id: 3,
  task_products: [
    {
      id: 406184,
      task_id: 187832,
      product_id: 824,
      concentration: "0.1000000000",
      concentration_units: 1,
    }
  ]
}
```

```
    created_at: "2018-10-27 14:21:18",
    updated_at: "2018-10-27 14:21:18",
    _updated: "2018-10-27 14:21:18",
    edited: 0,
    amount_sprayed_by_sprayed_area: 1.45,
    amount_sprayed_by_sprayed_area_unit: "kg",
  },
],
cultivar_ids: [
  "254",
  "255",
],
planting_ids: [
  14326,
  14327,
],
}
]
```

