Package 'tidyUSDA'

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Type Package

Title A Minimal Tool Set for Gathering USDA Quick Stat Data for Analysis and Visualization

Version 0.4.1

Description Provides a consistent API to pull United States Department of Agriculture census and survey data from the National Agricultural Statistics Service (NASS) QuickStats service.

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URL https://bradlindblad.github.io/tidyUSDA/, https://github.com/bradlindblad/tidyUSDA/

Depends R (>= 3.6)

Imports checkmate, crayon, dplyr, fuzzyjoin (>= 0.1.6), ggplot2, httr, jsonlite, magrittr, sf, tigris (>= 1.0)

Suggests covr, knitr, nlme, rmarkdown, spelling, stringi, testthat (>= 2.1.0), usethis, waldo

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LazyData true

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NeedsCompilation no

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Repository CRAN

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R topics documented:

`allCategory` *All possible values from the CATEGORY field.*

Description

All possible values from the CATEGORY field.

Usage

```
allCategory
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allCommodity *All possible values from the COMMODITY field.*

Description

All possible values from the COMMODITY field.

Usage

```
allCommodity
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allCounty *All possible values from the COUNTY field.*

Description

All possible values from the COUNTY field.

Usage

```
allCounty
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allDataItem *All possible values from the DATA ITEM field.*

Description

All possible values from the DATA ITEM field.

Usage

```
allDataItem
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allDomain *All possible values from the DOMAIN field.*

Description

All possible values from the DOMAIN field.

Usage

```
allDomain
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allGeogLevel *All possible values from the GEOGRAPHY LEVEL field.*

Description

All possible values from the GEOGRAPHY LEVEL field.

Usage

```
allGeogLevel
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allGroup *All possible values from the GROUP field.*

Description

All possible values from the GROUP field.

Usage

```
allGroup
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allProgram *All possible values from the PROGRAM field.*

Description

All possible values from the PROGRAM field.

Usage

```
allProgram
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allSector *All possible values from the SECTOR field.*

Description

All possible values from the SECTOR field.

Usage

```
allSector
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

allState *All possible values from the STATE field.*

Description

All possible values from the STATE field.

Usage

```
allState
```

Format

A vector with 1 variable

Source

https://quickstats.nass.usda.gov

getQuickstat *getQuickstat*

Description

Get values from USDA Quick Stats in a dataframe with optional sf (simple features) geometry field

Usage

```
getQuickstat(
  key = NULL,
  program = NULL,
  data_item = NULL,
  sector = NULL,
  group = NULL,
  commodity = NULL,
  category = NULL,
  domain = NULL,
  geographic_level = NULL,
  state = NULL,
  county = NULL,
  year = NULL,
  geometry = FALSE,
  lower48 = FALSE,
  weighted_by_area = FALSE
)
```

Arguments

key	your USDA api key. Get one at https://quickstats.nass.usda.gov/api - string
program	program field - string
data_item	data_item field - string
sector	sector field - string
group	group field - string
commodity	commodity field - string
category	category field - string
domain	domain field - string
geographic_level	geographic_level field - string
state	state field - either a string or character vector with multiple states
county	county field - either a string or character vector with multiple states
year	year field - string
geometry	geometry field (TRUE or FALSE), set to TRUE if you would like a simple features (SF) geometry field included. Only works when geographic_level is set to 'COUNTY' or 'STATE'
lower48	limit data to the lower 48 states? - TRUE or FALSE
weighted_by_area	option to mutate a new column that takes the target ('Value') and divides it by the square miles in that state or county; only works when GEOMETRY = TRUE - TRUE or FALSE

Note

Go to the webpage https://quickstats.nass.usda.gov/. As a best practice, select the items in these fields and test that that data item exists in the browser before using those parameters in this function. When you have a dataset that works, enter those values in the function as parameters. Ideally, only enter values for your key obviously, then PROGRAM, DATA_ITEM, GEOGRAPHIC_LEVEL and then if necessary, DOMAIN, STATE, COUNTY or YEAR.

Examples

```
## Not run:
getQuickstat(
  key = "your_key",
  program = "CENSUS",
  data_item = "CROP TOTALS - OPERATIONS WITH SALES",
  geographic_level = "COUNTY",
  domain = "TOTAL",
  year = "2017",
  state = NULL,
  geometry = T,
  lower48 = T
)
```

```
## End(Not run)
```

---

plotUSDA *plotUSDA*

Description

Quickly plot a data frame produced by the getQuickstat() function.

Usage

```
plotUSDA(df, fill_by = "Value")
```

Arguments

df	a data frame with a simple feature column (geometry)
fill_by	the value you would like to fill your choropleth output

Examples

```
## Not run:
# Use output from getQuickstat()
plotUSDA(df = df_from_getQuickstat)

## End(Not run)
```

---

tidyUSDA *tidyUSDA: An Interface to USDA QuickStats Data with Mapping Capabilities.*

Description

A minimal toolset for gathering USDA Quick Stat data for analysis and visualization.

Author(s)

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See Also

Useful links:

- https://bradlindblad.github.io/tidyUSDA/
- https://github.com/bradlindblad/tidyUSDA/

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