

Package ‘usdampr’

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Type Package

Title Request USDA MPR Historical Data via the 'LMR' API

Version 1.0.1

Description Interface to easily access data via the United States Department of Agriculture (USDA)'s Livestock Mandatory Reporting ('LMR') Data API at <<https://mpr.datamart.ams.usda.gov/>>. The downloaded data can be saved for later off-line use. Also provide relevant information and metadata for each of the input variables needed for sending the data inquiry.

License GPL (>= 2)

Encoding UTF-8

LazyData true

RoxygenNote 7.0.2

Depends R (>= 3.6.0)

URL <https://github.com/cbw1243/usdampr>

Imports httr (>= 1.4.1), jsonlite (>= 1.6), dplyr (>= 0.8.3), tidyr (>= 1.0.0), utils (>= 3.6.1)

NeedsCompilation no

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 mpr_request

Request current and historical USDA-AMS MPR data

Description

This is the primary function in the `usdampr` package to request data from the United States Department of Agriculture - Agricultural Marketing Service (USDA-AMS) mandatory price reporting, commonly known as MPR. This function allows users to access data documented in the Livestock Mandatory Price Reporting (LMPR), Dairy Products Mandatory Reporting Program (DPMRP), and Federal Milk Marketing Orders (FMMOS) market reports. LMPR contains data for cattle, hogs, sheep, beef, pork, and lamb.

Usage

```

mpr_request(
  slugIDs = NULL,
  slugIDs_legacy = NULL,
  report_time = NULL,
  message = TRUE
)

```

Arguments

<code>slugIDs</code>	Valid slug IDs. Should be a 4-digit number, either a numerical value or a character. Users can provide either one slug ID or multiple slug IDs. See details.
<code>slugIDs_legacy</code>	Valid legacy slug IDs. Examples: LM_XB401, LM_XB403.
<code>report_time</code>	A valid date (e.g., '01/31/2020') or period of time (e.g., '01/31/2020:03/25/2020'). For FMMOS, it should be a year (e.g., 2019). The default is the current system date.
<code>message</code>	A binary indicator for whether to display warning messages or not. Default is TRUE.

Details

This function is built on the web service provided by USDA-AMS. Alternatives to this package include text files to be directly downloaded via <https://mpr.datamart.ams.usda.gov> (known as DATAMART), or direct coding of the API. Starting in April 2020, text files were made permanently unavailable.

The `mpr_request` function provides flexible ways to request data. Specifically, users can download data from a single report or multiple reports for a pre-specified report time. Users can also specify slug IDs or the legacy slug IDs to request data.

The data request takes two necessary inputs. The first input is slug ID or legacy slug ID. Slug ID should be a 4-digit number (numbers in characters are fine). Examples for slug ID include 2461 (Report name: National Weekly Boxed Beef Cutout & Boxed Beef Cuts), 2472 (Report name: Weekly Direct Slaughter Cattle). If you happen to not know the slug ID, you can use the legacy slug IDs, such as LM_XB459 (Report name: National Weekly Boxed Beef Cutout & Boxed Beef

Cuts). When legacy slug IDs are provided, the `mpr_request` function would perform an internal search for their corresponding slug IDs and then make data requests. The returned data are labelled by slug IDs for consistency. Users should provide either slug IDs or legacy slug IDs, not both. The provides slug IDs or legacy slug IDs must be valid. Use `data(slugInfo)` to get a list of valid slug IDs and the report information.

The second input is report time. For LMPR and DPMRP, the report time should be a specific date with year, month and day, formatted as: For FMMOS, the report time should be a year instead, such as 2020. Users can request data for a range of time period, such as "06/01/2020:06/05/2020" for data from June 1st 2020 to June 5th 2020.

Value

The function returns a list with the requested data. The requested are either daily, weekly, monthly, or yearly, depending on the report data being requested. Report sections associated with the slug ID are located in sub-lists. Empty data could be returned if there are no data associated with the request.

Examples

```
# Load all available slug IDs, report date, report sections, and report frequency
# If you already know the slug IDs, you can ignore skip thie code
data(slugInfo)
# Example 1: One slug ID, single date
test1a <- mpr_request(slugIDs = 2461, report_time = '01/31/2020')
# Now use legacy slug ID
test1a_legacy <- mpr_request(slugIDs_legacy = 'LM_XB459', report_time = '01/31/2020')

# Example 1: One slug ID, multiple dates
test1b <- mpr_request(slugIDs = 2461, report_time = '01/31/2020:03/25/2020')
# Multiple slug IDs, single date
test1c <- mpr_request(slugIDs = c(2461, 2463), report_time = '01/31/2020')
# Now use legacy slug ID
test1c_legacy <- mpr_request(slugIDs_legacy = c('LM_XB459', 'LM_XB461'), report_time = '01/31/2020')

# Multiple slug IDs, multiple dates
test1d <- mpr_request(slugIDs = c(2461, 2463), report_time = '01/25/2020:03/25/2020')

# Get Livestock Mandatory Price Reporting (LMPR) data.
test2a <- mpr_request(slugIDs = 2463, report_time = '01/25/2020:03/25/2020')
# Get Dairy Products Mandatory Reporting Program (DPMRP) data.
test2b <- mpr_request(slugIDs = 2991, report_time = '01/25/2020:03/25/2020')
# Get Federal Milk Marketing Orders (FMMOS) data. NAs are returned if the data do not exist.
test2c <- mpr_request(slugIDs = 3346, report_time = '2018:2019')
```

slugInfo	<i>A data set lists all available report information as supplied by USDA-AMS</i>
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Description

The listed reports describes slug ID, legacy slug ID, report title, report frequency, market type, office, and section names.

Usage

```
data(slugInfo)
```

Format

An object of class `data.frame` with 119 rows and 9 columns.

Examples

```
data(slugInfo)
```

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