Agricultural products from developing countries price quotation platform

Contents





KNOW MORE

Program Introduction

Dataset introduction

Global food price fluctuations can lead to famine and large-scale population movements. Price changes are increasingly important to policymakers because global warming threatens to destabilize food supplies. Get more than 740,000 lines of prices on various commodities in the developing world market. The data include information on the country, market, commodity price in local currency, commodity quantity units and month of recording.

column	meaning
adm0_name	Country Name
adm1_name	City Name
mkt_name	Market Name
cm_name	Product Name
cur_name	Currency Name
pt_name	Price Type
um_name	Product quantity unit
pm_month	Record Month
pm_year	Record Year
pm_price	Product Price
pm_commoditysource	Product Source

Program Introduction

The designed data set

Table name	Correspondence chart
country.csv	front page
cm_count.csv	top 10 popular products
country_count.csv	size of national economy
commoditysource_count.csv	product source statistics
food_clear.csv	product inquiry
monthavg.csv	price trends
mkt_price.csv	market price distribution
tongji_category.csv	proportion of product categories

Table name	Correspondence chart
yearavg.csv	product annual average comparison
food_labor.csv	labor wages
compare_price.csv	product price ranking
rice.csv	rice information
meat . csv	meat information
bean.csv	pulses information
livestock.csv	livestock information
prediction.csv	price prediction

Program Introduction

Technology Architecture

Spark

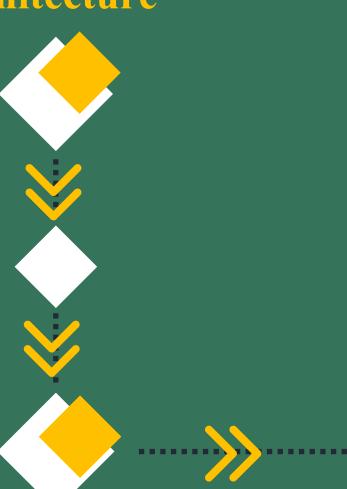
Process data and train models

Hive

Extract, transform and load global food price data

Hadoop

Store data with HDFS





Hbuilder+Echarts

Use front-end page technology to create a user-friendly data analysis platform and visually display the analysis results on the front-end page



SpringBoot

Build a back-end service to handle requests initiated by the front-end page

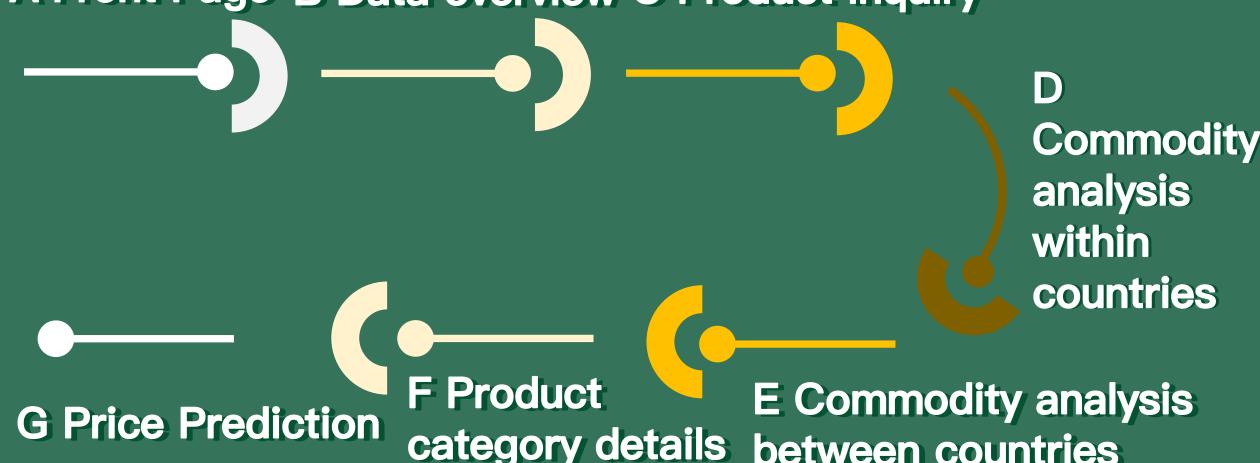


Mysql

Used to store and manage analysis results and other related data

Platform Display

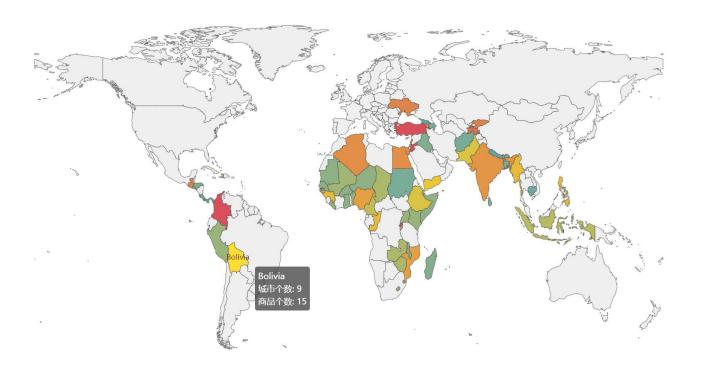
A Front Page B Data overview C Product inquiry



between countries

Platform Display —front page

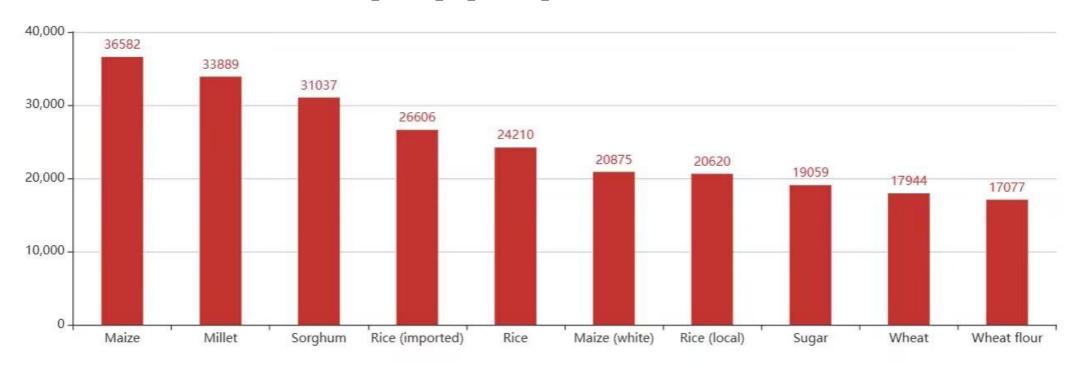




A world map showing the distribution of data, with colors rendered according to the number of products.

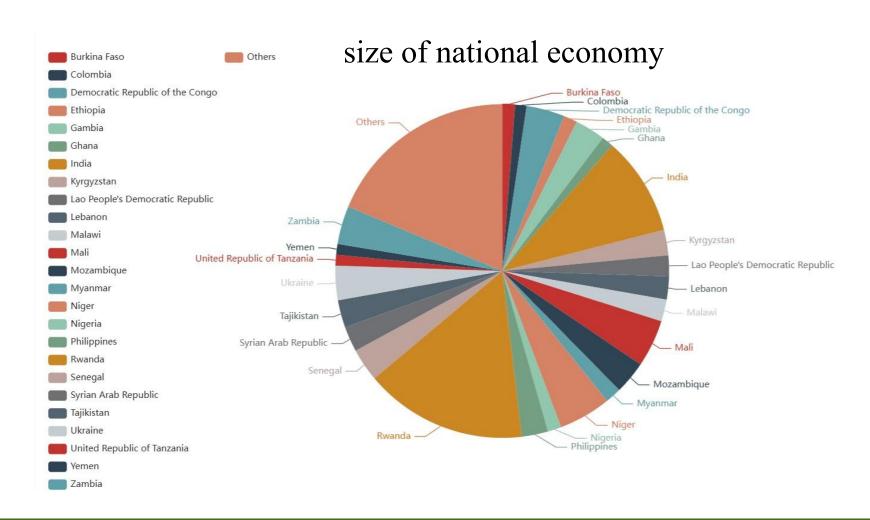
Platform Display —data overview

top 10 popular products



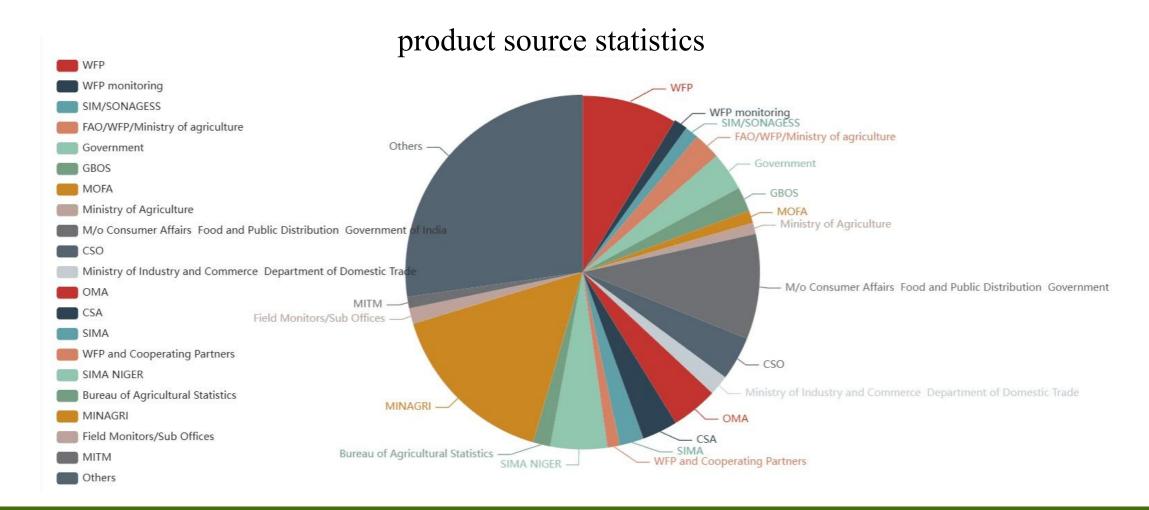
Statistics of the top 10 most popular commodities in developing countries.

Platform Display —data overview



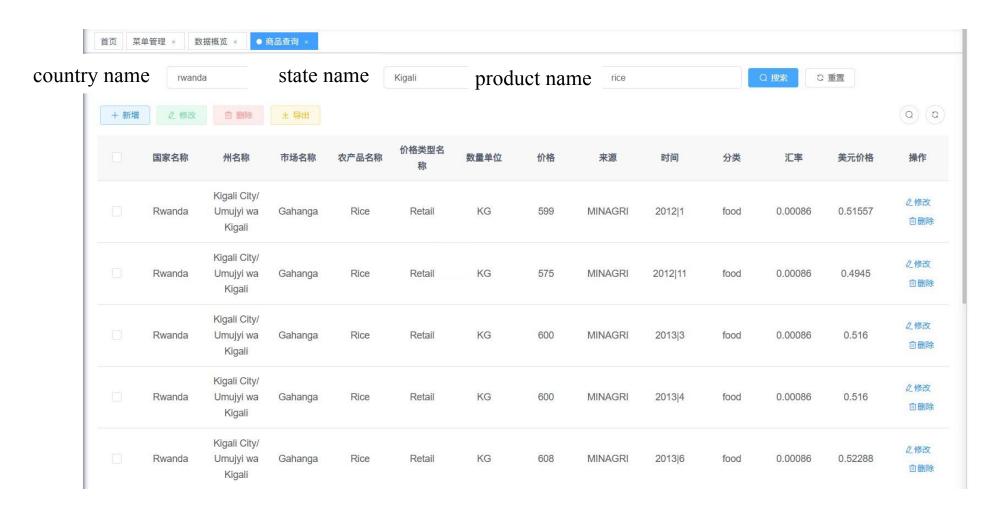
The number of data items that count all commodities in a country represents the size and complexity of the country's economy.

Platform Display —data overview



The distribution proportion of data source websites in the statistical data set.

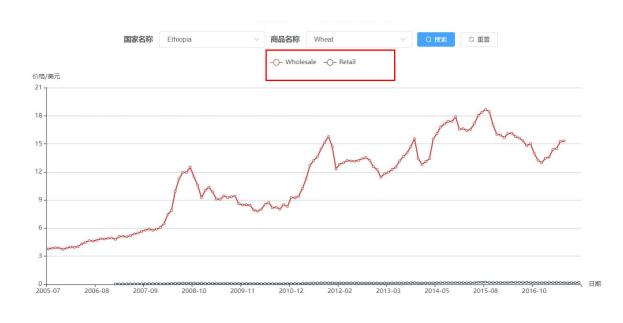
Platform Display —product inquiry

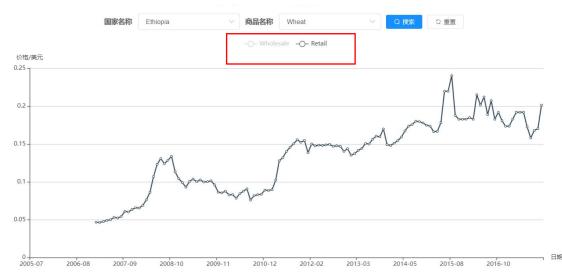


Query detailed information about a specified country, city or agricultural product.

Platform Display —commodity analysis within countries

Ethiopian wheat price changes

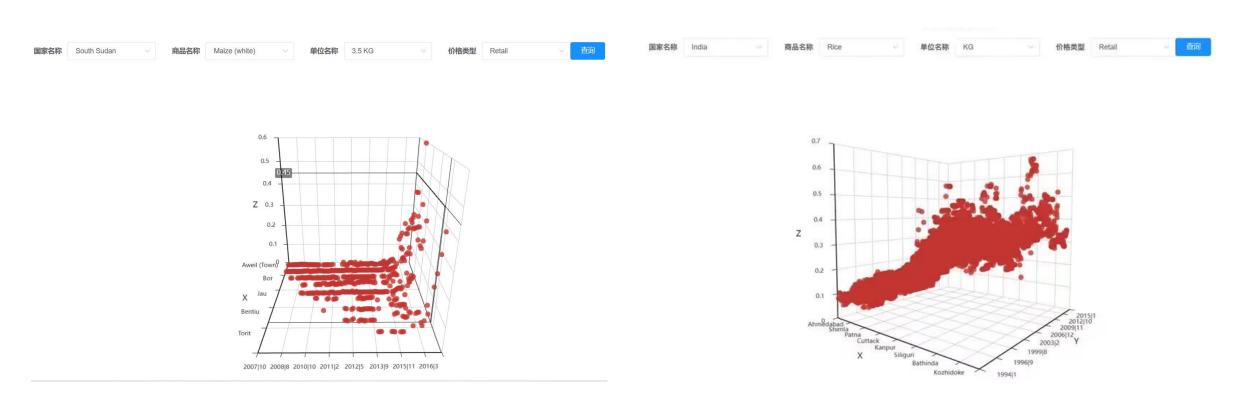




Observing the price change trend of a certain commodity in a country over the years, the change trend can reflect the market economic fluctuations of the country.

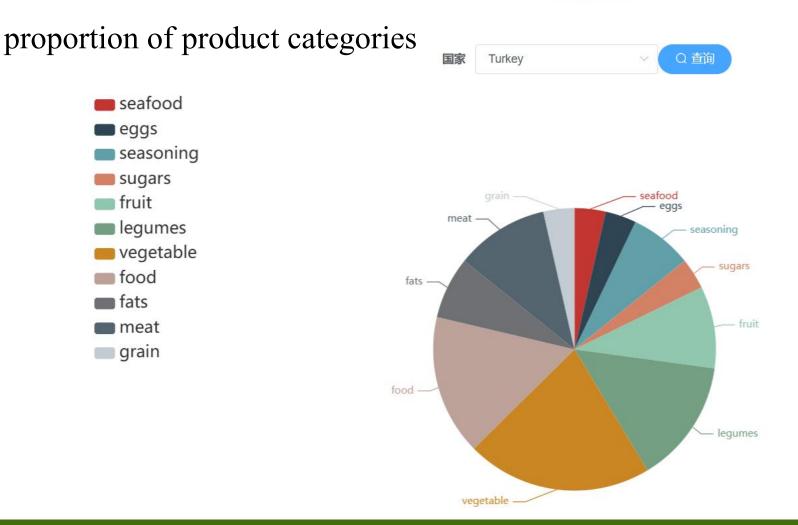
Platform Display —commodity analysis within countries

market price distribution



It shows the price changes in the market over the years, that is, the market adjusts prices in different periods to judge its economic stability.

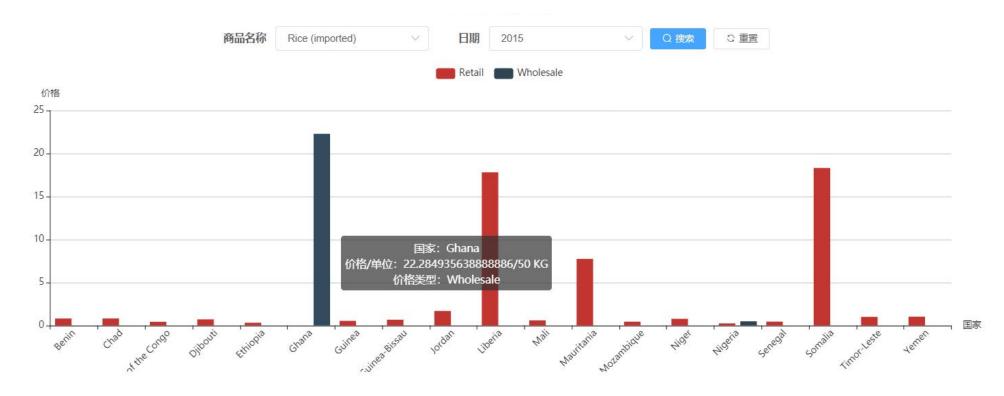
Platform Display —commodity analysis within countries



Display the category proportions of the country's commodities and observe the richness of the agricultural products sold in the country.

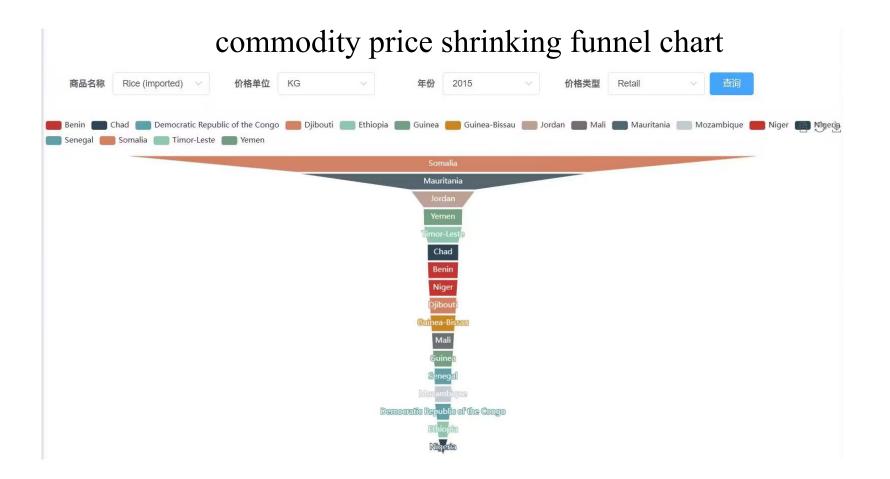
Platform Display —commodity analysis between countries

commodity average annual price comparison



Compare the countries and prices in which a certain product was sold in a certain year. Different colors represent different price types.

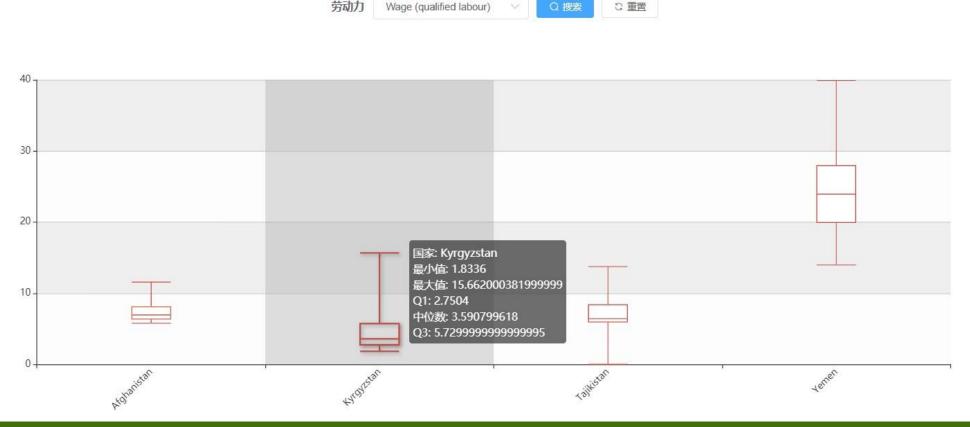
Platform Display —commodity analysis between countries



It intuitively displays the ranking of commodity prices between countries from high to low.

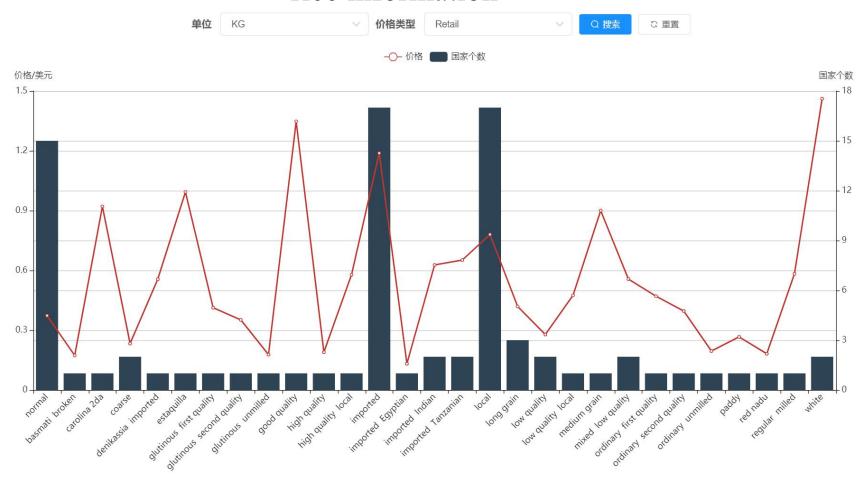
Platform Display —commodity analysis between countries

labor wages



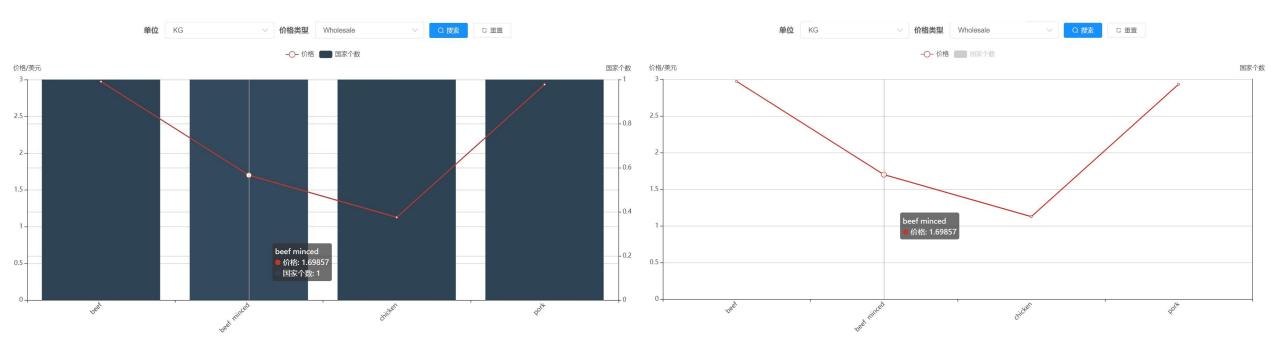
Compare the salary distribution of a certain kind of labor force in countries with that kind of labor force.

rice information



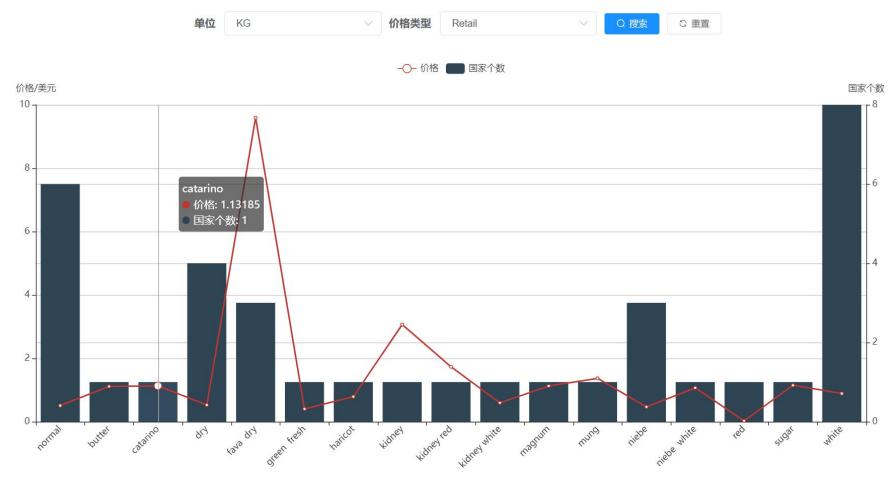
The chart shows the specific types of rice commodities, their prices and the number of countries where they are sold.

meat information



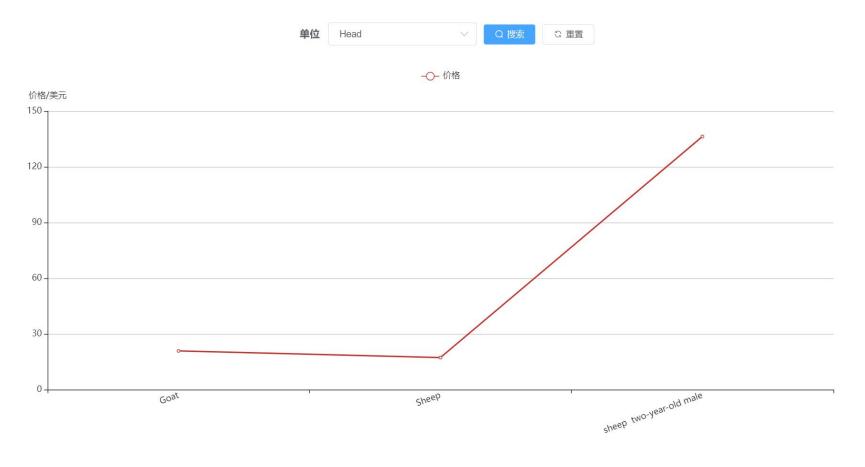
This figure shows the recorded meat products among the wholesale products in KG.

bean information



The chart shows the specific breakdown of the pulses commodity, along with its price and the number of countries in which it is sold.

livestock information



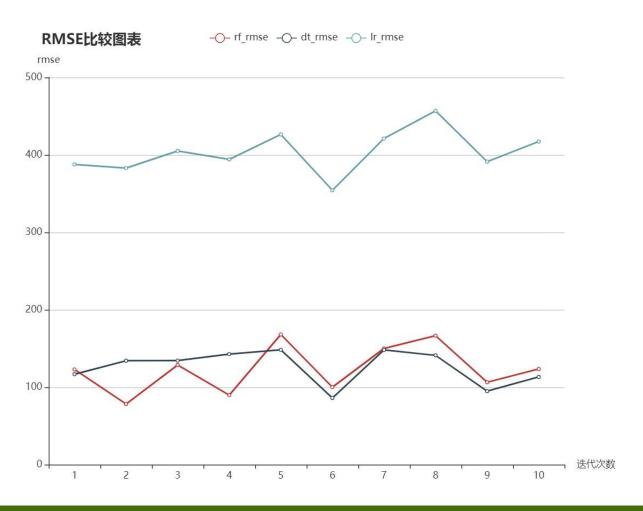
This chart shows the products and prices of livestock products sold per head.

Platform Display —price prediction



The graph shows price forecasts for commodities for specified countries, cities, commodities, price types, and commodity units.

Platform Display —price prediction



This figure shows the reasons for the selection of the prediction model, ranking the three models according to the root mean square error.