Food and Agriculture Organization of the United Nations

Federación Latino-americana de Mercados de Abastecimiento

Wholesale markets

Action against COVID-19

Bulletin 4
18/08/2020

Pág.

Editorial

In this fourth edition, the joint bulletin of the Food and Agriculture Organization of the United Nations (FAO) and the Latin American Federation of Supply Markets (FLAMA) explores the impacts of the health crisis triggered by the COVID-19 pandemic on investments and the performance of supply centres. In a survey conducted last July – with the participation of 71 wholesale markets in 15 countries of the region – representatives of wholesale markets pointed out that the ostensive decrease in demand has put them in difficulties. They stressed that they had made a significant effort to keep markets open, investing in critical areas for their performance.

The economic situation is worrying, and infection rates continue to rise in Latin America and the Caribbean. Consequently, preventive measures against COVID-19 should be maintained and even intensified. The International Monetary Fund (IMF) forecasts a historic 9.4 percent drop in GDP for the region this year, followed by a slight 3.7 percent increase in 2021. This is an adverse scenario for the economy in general, and wholesale markets in particular, as it interferes with their plans to modernise and expand the supply of products and services.

The unfavourable situation does not prevent us from looking to the future. To most of the participants in the survey (77 percent), once the crisis is over, new investments will be needed, either with their own resources, in combination with support from traders, or even from the government. These new investments are a priority; many are imposed by the effects of the pandemic. Renovating entrance doors, pavilions and parking lots are concerns shared by 35 percent of the markets surveyed; followed by a group of actions aimed at improving connectivity, internet and telephony, and the dissemination of business information (24 percent).

The computerisation of supply centres and virtual operations are also explored in this publication, in two interviews with representatives from the National Supply Company of the Ministry of Agriculture of Brazil (Conab) – in charge of food supply and storage–, and the Institute of Agricultural Marketing of the Ministry of Agricultural Development of Panama (IMA, by its acronym in Spanish).

This publication is part of a joint effort by FAO and FLAMA to bring the region's wholesale food markets closer together. This work also involves communities of practice (CoPs) that have brought

together dozens of markets and government authorities. Despite the magnitude of the crisis we are experiencing, we are confident that thanks to this and other initiatives, we will be better prepared to promote food security and nutrition in our countries.

Key Messages

- Wholesale food markets are rapidly adapting to the constraints imposed by the pandemic.
- Some measures introduced in wholesale food markets to contain COVID-19 must continue to be implemented. Such measures include, for instance, virtual transactions, concern for hygiene in the premises, for health and working conditions of traders and employees.
- In the region, 16 countries maintain information systems with data on product availability, market prices, and quality.
- More than two-thirds of the wholesale markets that participated in the monthly survey in July reported a reduction in demand: One in ten markets records a drop in sales volume of more than 50 percent.
- Prices in the markets have remained stable, although they tend to rise for some products, mainly meat and fish.

Interviews

Joyce Rocha Oliveira Fraga
Manager of the Brazilian Horticulture Modernisation Program (Prohort)

Prohort is one of the most essential national information systems for the world's wholesale markets. How is the program structured and what kind of data and information does it generate?

The Horticulture Market Modernisation Program (Prohort) is operated by the National Supply Company (Conab), a public company linked to the Brazilian Ministry of Agriculture, Livestock and Supply (MAPA, by its acronym in Portuguese).

The programme aims to develop a comprehensive information system on horticultural products, based on data from Brazilian wholesale markets (known as "Ceasas"). Information and cooperation actions with wholesale markets are provided through technical cooperation agreements, allowing Prohort to systematise and disseminate information, promoting the visibility of Ceasas and contributing to agricultural intelligence. All the information is available on the program's website.

Daily quotes and average prices are published for 48 products from 34 wholesale markets. The Prohort-Ceasas pricing application, which can be accessed from mobile devices (cell phones), provides a general survey of daily prices, facilitating access to information and decision-making for all actors in the production chain. The tool is free and available in app stores.

Prohort makes available to the population data on annual sales of Brazilian wholesale markets, both in quantity and value of marketing, detailed by group of horticultural products, cereals, and a wide range of products. By 2019, for example, the system identified that 16.8 million tons of fruits and vegetables were sold in 61 Brazilian wholesale markets, representing an annual sales value of over USD 10 billion!

The Brazilian Supply Market Information System (SIMAB, by its acronym in Portuguese) generates information on the geographical origin of products, prices and the physical and financial volume of sales. This system allows the elaboration of graphs, maps, analysis, and several sectoral and regional overviews through a free business intelligence tool. The tool enables the identification of seasonality, productive perimeters (by region, state, micro-region, and municipality) and the historical series of prices and offers since 2010. It also allows us to consult a collection of 117 fruits and 133 vegetables, adding more than 2 100 products when the varieties are considered.

How important is data generated by Prohort? Who are its users and clients, and how does this information contribute to the Brazilian agrifood system?

Prohort systems consolidate horticultural sector information at the national level, aggregating statistical data on a single public-access platform. Through the information available, Conab/Prohort releases the Boletim Hortigranjeiro (monthly situation of the five vegetables and five fruits most sold in Ceasas), weekly reports (monitoring of sales and prices in wholesale markets), total sales of fruits and vegetables in Ceasas per year, in addition to other publications which consolidate the sector's literature.

Users of the systems are rural producers, traders, government agencies, financial, educational and research institutions. This wide range of data supports productive and commercial decision-making, the preparation of technical studies, definitions of credit and rural insurance, and the monitoring of food supply. In this time of constraints, due to the coronavirus pandemic, this information is increasingly important, helping public authorities to conduct actions to ensure regular food supply and access. The information allows for the timely monitoring of the national fruit and vegetable sector; it also enables measures aimed at maintaining supply, supporting producers and guaranteeing the food security and nutrition of populations.

The systems are available on the website www.conab.gov.br/info-agro/hortigranjeiros-prohort.

Sócrates Theoktisto
Deputy Director of Marketing and Commercialization
of the Panamanian Agricultural Marketing Institute
(IMA, by its acronym in Spanish

The Agricultural Marketing Institute of Panama (IMA) is in charge of providing the information system for agribusinesses. Is it a daily report on the price behaviour of various products? How are these statistics collected?

As part of the government agricultural sector led by the Ministry of Agricultural Development (MIDA, by its acronym in Spanish), IMA's function is to implement the marketing policies formulated by MIDA, supporting the national producer in the commercialisation and marketing of his or her products. The overall objective is to contribute to the agricultural sector's growth and development.

The Information System for Agribusinesses (SIPAN, by its acronym in Spanish)) is a program created to provide the protagonists of the commercialisation chain with elements that allow them to establish strategies and work plans to increase the economic yield of their crops. It is based on the variables of seasonality, supply and demand, in addition to other initiatives that can favour the development of the national agricultural activity.

SIPAN is a digital platform managed by IMA as a service for the public and private sector, in which wholesale and retail prices are reported for more than 100 products in the country's main markets. The system provides truthful, timely and transparent information to producers, exporters, investors and users in general, about the behaviour of the national market for decision-making. Information collected by a team of market reporters at the national level is processed through a digital platform that disseminates a daily report from Monday to Friday on the price behaviour of agricultural products quoted.

The capture is done by a team of reporters who visit the largest markets in the country from Monday to Friday; for the metropolitan area, three main markets are visited (MERCA Panama, San Felipe Nery Market, and the Seafood Market). The aim is to obtain a maximum price, an average price and a minimum price. The information refers to the wholesale prices of the regional markets, that is, daily, weekly, monthly prices of wholesale and retail markets, and historical prices, as well as seasonal price indexes. Price disclosure is currently provided on a website (www.ima.gob.pa/sipan), by our IMA CHAT system, and also by telephone and face-to-face consultation, upon request.

How is the classification of products done? Does IMA also provide laboratory and packaging analysis services? What has changed with the pandemic emergency?

Currently, in the wholesale report, the products are classified by item: grains, roots and tubers, fruits, vegetables, and agro-industrial products.

For the moment, IMA collaborates indirectly in e-commerce, since SIPAN is an information tool that gives a little context to the market behaviour of various products. It helps reduce speculation, negotiate fair prices, and allows the producer to improve the prices of sales to intermediaries; in short, it strengthens the commercialisation chain with truthful, concise and timely information.

IMA provides facilities for laboratory services, mainly for grain, at affordable prices and accessible to the public. A complete analysis is performed, as well as testing for moisture, impurities, shelling, grading, infestation testing, testing for plaster seeds and damaged red grains in rice, and drying services for rice.

Storage services are provided in silos and warehouses – owned by the institution – with suitable and adequate technical supervision; fumigation services are also available at the request of the public, as well as weighing services for trucks and containers, and grain bagging. All these services are aimed at facilitating local producers' ability to market quality products effectively.

With the arrival of the pandemic, measures have been taken to care for personnel at risk, which has led to a reduction in the presence of staff dedicated to laboratories and samples; however, services have not ceased to be provided and are currently maintained in our regional offices at the national level. The entry of outsiders – mainly domestic food service providers–, and unauthorised personnel has been limited; health measures have been implemented such as footbaths, alcohol gel dispensers, availability work options, and teleworking for non-essential personnel. It should be noted that the food industry has not stopped during this national emergency. Considering the nature of our institution and our mission, we have maintained the operation in all regions at the national level since the beginning of this pandemic.

Market information systems in Latin America and the Caribbean

In Latin America and the Caribbean, several countries maintain market information systems that record the commercial activities of wholesale supply centres. The scope of these systems varies from country to country concerning the number of products surveyed and the periodicity with which the information is disseminated. Maintaining an up-to-date system allows farmers to plan their production, traders to practice transparent pricing, and buyers and the general public to follow price trends in the economy.

The information system is the initial step towards launching an environment in which virtual transactions can take place. With daily or weekly statistics on traded volumes and prices, farmers and traders can conduct electronic transactions and schedule quantities and destinations for product delivery. At this point, it is essential to have confidence in the classifications of the products used, the size of the packaging and the bromatological status of the products. In many cases, the system evolves to calculate freight, taxes and other transaction details. Clearly, remote transactions should not replace the work traditionally done in the market environment. The market in its traditional form must always exist. Still, the emergency caused by COVID-19 has shown that supply activity can be expanded and made more agile with a sound information system.

Below, we present the main systems in operation, the number of participating markets and the corresponding website.

In Latin America and the Caribbean, 16 countries have information systems for commercial activities, which record daily prices of horticultural products sold in 122 wholesale markets. This is a significant number: it includes all the national reference markets, which are the basis for price formation, and an important part of the regional and local wholesale markets.

In eight countries of the region, the institutions responsible for the information systems generate annual statistical information, some of which also include information on the quantity sold, the sale value, the geographical origin of the products sold and dynamic tools for processing public data.

This level of economic activity monitoring in wholesale markets is a distinctive and essential element in the region. However, its potential for information generation and decision-making, both for public policy and private activities, has not been fully exploited yet.

National and provincial governments also disseminate information on prices, import and export movements and, more recently, the evolution of COVID-19 infection. 19. In this regard, FAO and the Economic Commission for Latin America and the Caribbean (ECLAC) published a bulletin that discloses the main databases, as well as global and regional issues on the subject (FAO and ECLAC, 2020).

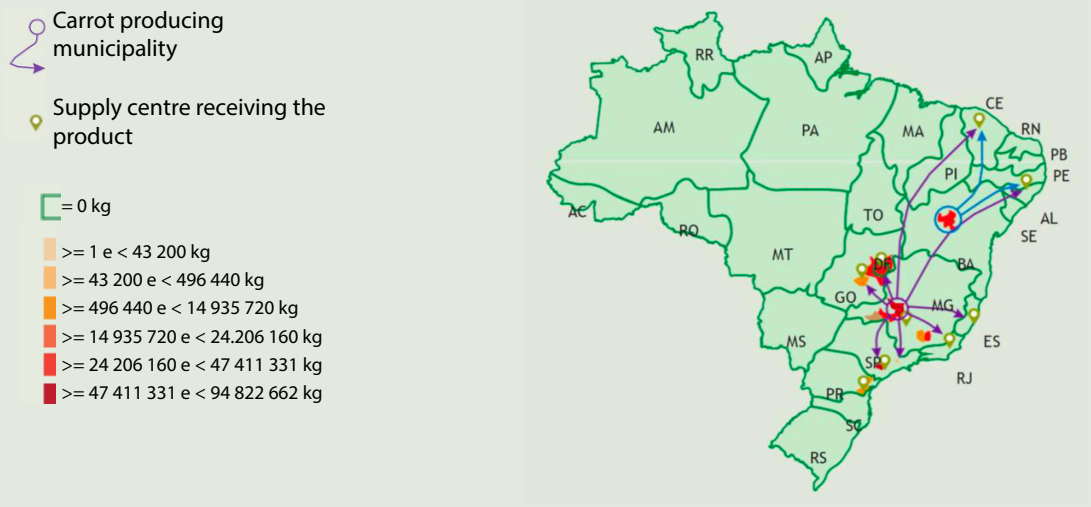
Table 1. National entities that accompany commercial activities in wholesale food markets in Latin America and the Caribbean.

N°	Country	Organ/self-sufficiency	Daily prices (no. of markets)	Annual statistics	Website
1	Argentina	Weekly market monitoring of the Ministry of Agriculture, Livestock and Fisheries (MAGYP, by its acronym in Spanish)	1	YES	https://www.argentina.gob.ar/agricultura/monitores-de-mercado
2	Brazil	Horticulture Market Modernisation Program (Prohort)	34	YES	https://www.conab.gov.br/info-agro/hortigranjeiros-prohort
3	Plurinational State of Bolivia	Agro-Environmental and Productive Observatory (OAP, by its acronym in Spanish)	9		http://www.observatorioagro.gob.bo/
4	Chile	Office of Agricultural Studies and Policies (ODEPA, by its 12 YES https://www.odepa.gob.cl/publicaciones/boletines/boletin-diario-de-precios-y-volumenes-de-frutas-en-mercados-mayoristas acronym in Spanish)	12	YES	https://www.odepa.gob.cl/publicaciones/boletines/boletin-diario-de-precios-y-volumenes-de-frutas-en-mercados-mayoristas
5	Colombia	Price and Supply Information System (SIPSA, by its acronym in Spanish)	14	YES	https://www.dane.gov.co/index.php/estadisticas-por-tema/agropecuario/sistema-de-informacion-de-precios-sipsa
6	Costa Rica	Wholesale Market Information System (SIMM, by its acronym in Spanish)	1		http://www.pima.go.cr/simm/
7	Ecuador	General Coordination of the National Information System (CGSIN, by its acronym in Spanish)	4	YES	http://sipa.agricultura.gob.ec/index.php/precios-mayoristas
8	El Salvador	Directorate-General for Agricultural Economics (DGEA, by its acronym in Spanish)	1		http://www.mag.gob.sv/direccion-general-de-economia-agropecuaria/
9	Honduras	Honduran Agricultural Products Market Information System (SIMPAH)	2		http://www.fhia.org.hn/htdocs/simpah.html
10	Mexico	National Information and Market Integration System (SNIIM, by its acronym in Spanish)	34		http://www.economia-sniim.gob.mx/nuevo/
11	Nicaragua	Price and agricultural market intelligence subsystem	1		
12	Panama	Agricultural Marketing Institute (IMA, by its acronym in Spanish)	1		https://web.ima.gob.pa/
13	Paraguay	Agricultural Market Information Service	1	YES	http://www.mag.gov.py/index.php/institucion/dependecias/boletines-dc
14	Peru	Supply and Price Information System (SISAP, by its acronym in Spanish)	5	YES	http://sistemas.minagri.gob.pe/sisap/portal/
15	Dominican Republic	Dominican Markets for Agricultural Supply (MERCADOM)	1		http://mercadom.gob.do/
16	Uruguay	Farmer's Observatory	1	YES	http://mercadomodelo.net/observatorio-granjero
TOTAL			122		

Source: FAO.

The following is an example of how Brazil uses market information in the Prohort system

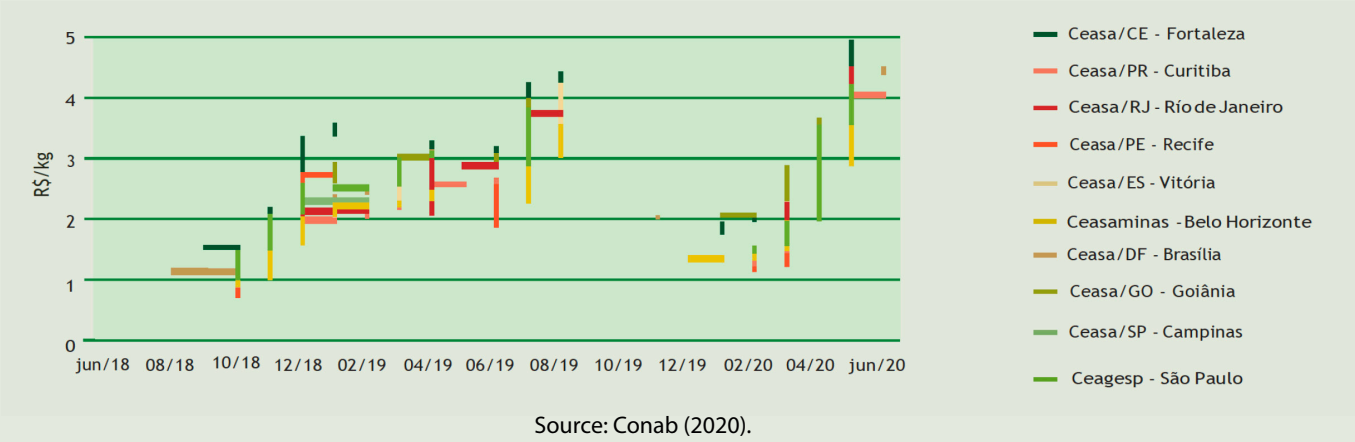
Figure 1. Carrot production and marketing flow.



It allows the identification of productive perimeters (municipality, micro and mesoregion, state, region) and the amount of product sent to wholesale markets.

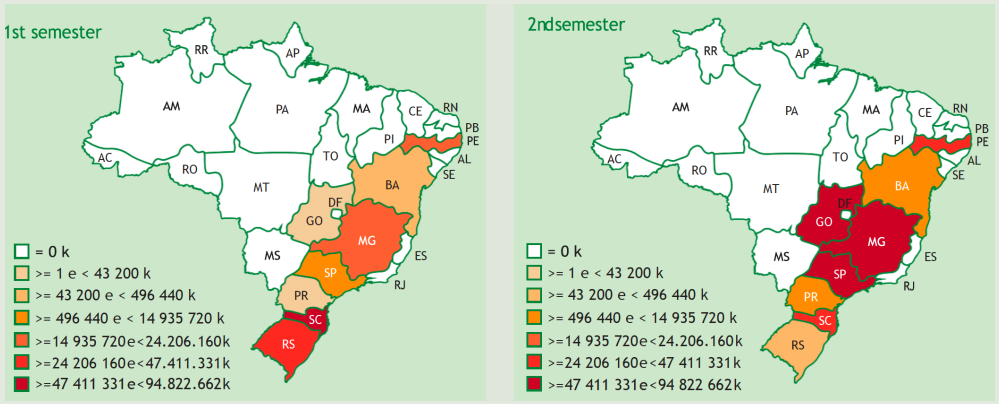
Source: Conab (2020).

Figure 2. Average onion price in selected Brazilian wholesale markets in 2018, 2019, and 2020.



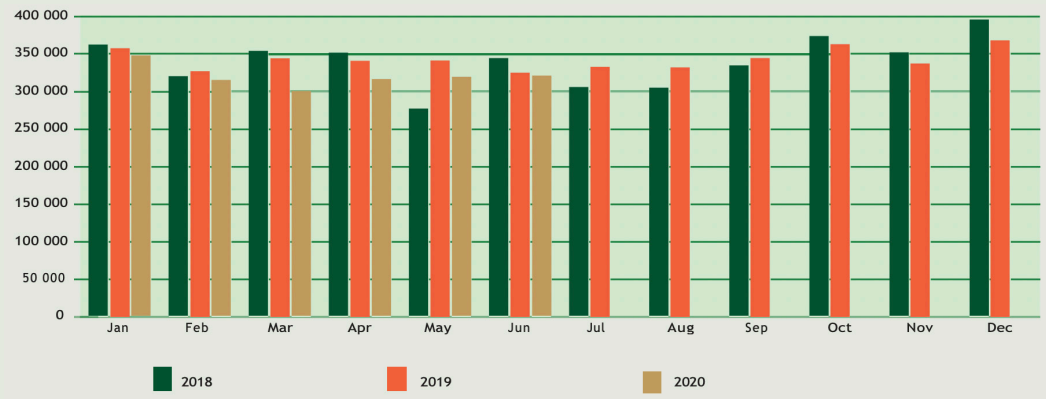
Source: Conab (2020).

Figure 3. Onion-producing regions in Brazil, by semester.



Source: Conab (2020).

Figure 4. Volume of fruit sold in the main wholesale markets analysed (Ceasas) in 2018, 2019, and 2020.



Source: Conab (2020).

Monthly survey of movements in wholesale markets (main results)

In July, the FAO-FLAMA survey delved into the investments aiming at modernising marketing systems in wholesale markets. In previous editions of this publication, we examined the use of applications for transactions in wholesale food markets; in this edition, we look at the investments that have been made in companies and organisations.

The survey involved 71 wholesale food markets in 15 countries in Latin America and the Caribbean. The reference markets in each country participated in this survey, in addition to other important regional markets. There was massive participation of Mexican markets, representing almost half of the responses received, although it is worth noting the significant presence of Brazilian and Argentine markets. Territorially, these are the three largest countries in the region, so the scope of this survey is invaluable in covering a large part of the Latin American population (see Figure 5).

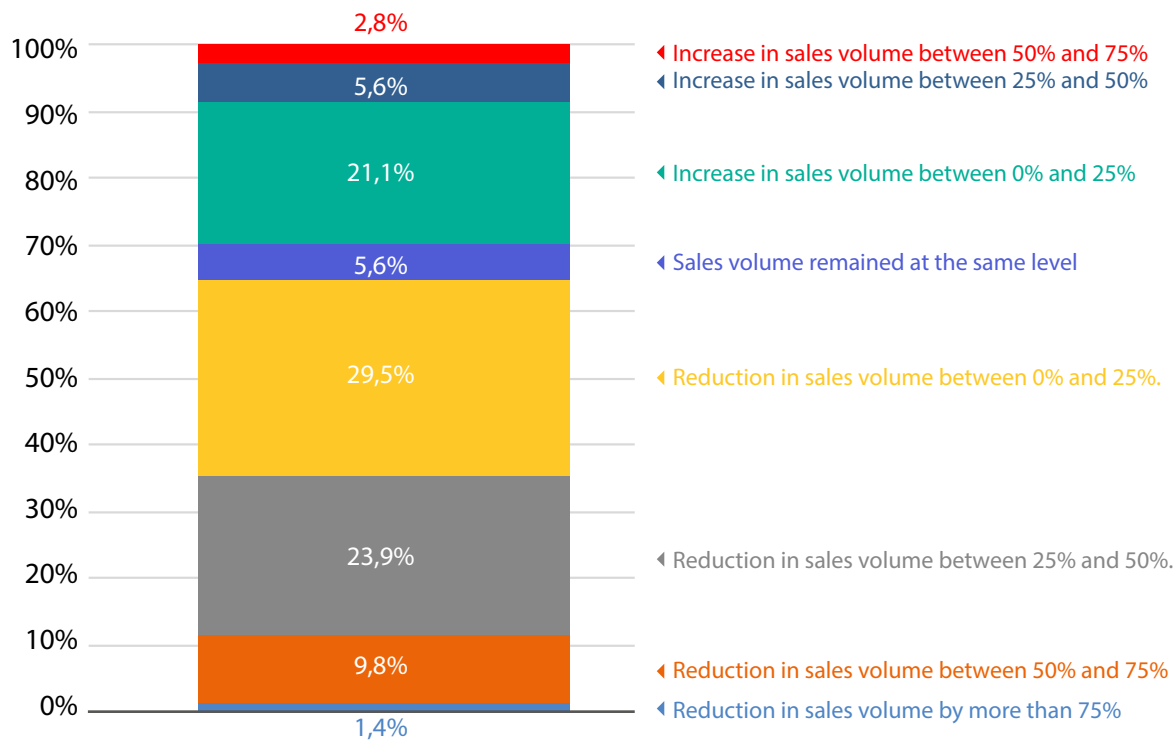
Figure 5. Countries and markets involved in the survey.

Source: FAO-FLAMA survey, July 2020.

The survey starts by trying to evaluate the approximate impact of COVID-19 on demand for food in supply centres. As we could see in previous surveys, there was a notable reduction in sales volume, since the hotel, restaurant and cafeteria sector (HORECA) reduced its purchases in most countries.

Therefore, question 1 was about assessing whether this reduction in demand from the institutional segment had been compensated by other areas, including direct sales to consumers. The results indicate that this reduction was not compensated by an increase in household consumption (see Figure 6).

Figure 6. Impact of COVID-19 on marketing volumes in wholesale markets.

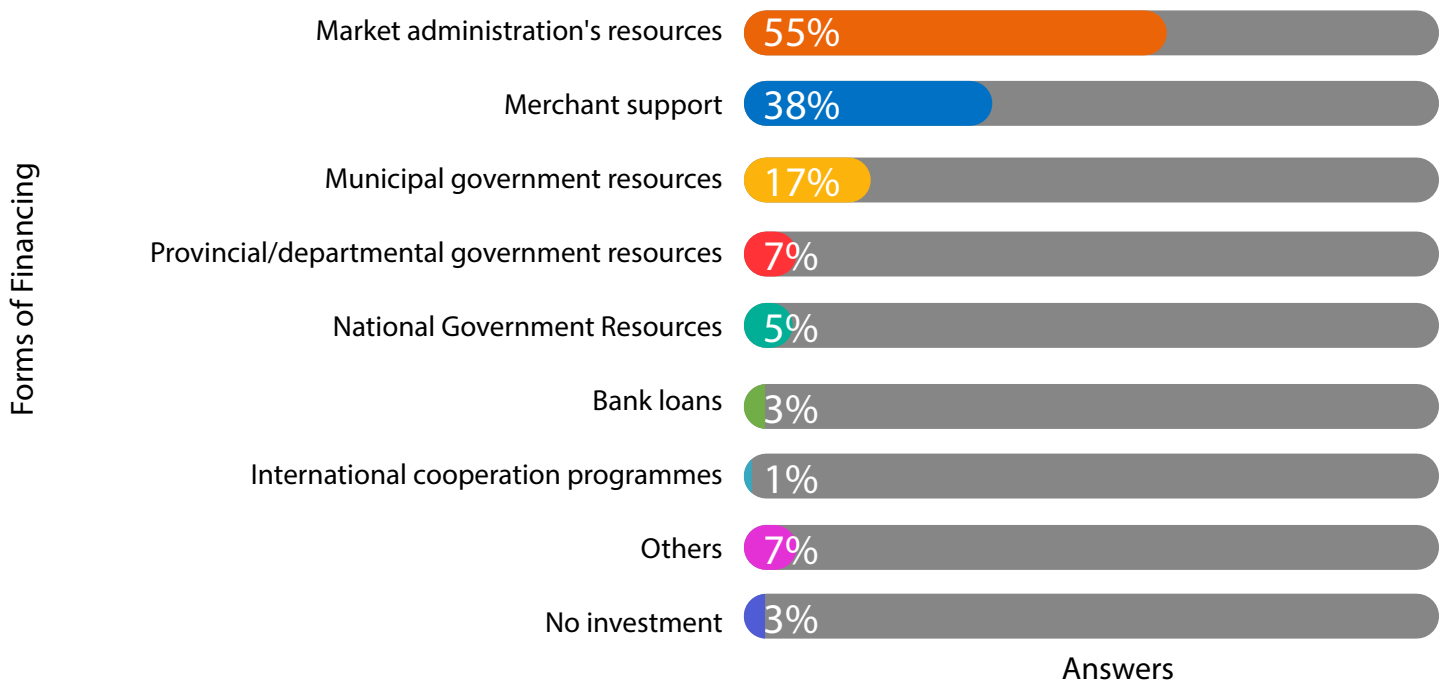


Source: FAO, based on FAO-FLAMA survey, July 2020.

Fifty-four percent of wholesale markets reduced the volumes traded by up to 50 percent. Overall, two-thirds of the markets reported decreases in trade volumes. In contrast, almost a third reported increases in volumes. In eight markets, sales decreased by more than 50 percent, namely in Argentina (1), Ecuador (2), Mexico (4) and the Bolivarian Republic of Venezuela (1). On the other hand, two markets in Mexico and the Bolivarian Republic of Venezuela registered an increase in sales of over 50 percent.

The main question among markets is how to obtain resources to make investments, considering the loss of the volume that was to be traded. In this sense, the research raised a second question to understand the origin of the resources applied (see Figure 7).

Figure 7. Main origin of investment resources from wholesale markets to combat COVID-19.



Source: FAO, based on FAO-FLAMA survey, July 2020.

Figure 7 indicates that 55 of the 71 participating markets have drawn on their own resources. These can be combined and complemented with government contributions, or even bank loans. Despite some exceptions, such as in Uruguay, where a "coronavirus tax" covers part of the investments, there are very few alternatives, such as increasing the contribution of traders or “charging tolls” to market participants. The emergency health situation required the region's wholesale markets to carry out several initiatives to combat and prevent the spread of COVID-19.

As identified in FAO and FLAMA (2020a), this meant adopting, over time, progressive dissemination measures, operational changes, mass sanitation actions and installation of health units for users and market agents.

In sum, most wholesale markets have used their own resources to carry out these measures that are market-specific (55), followed by contributions from traders (38). A more limited number of markets received budgetary support from municipal (17), state (7) and federal (5) governments. Three markets relied on bank loans and one was supported by international resources.

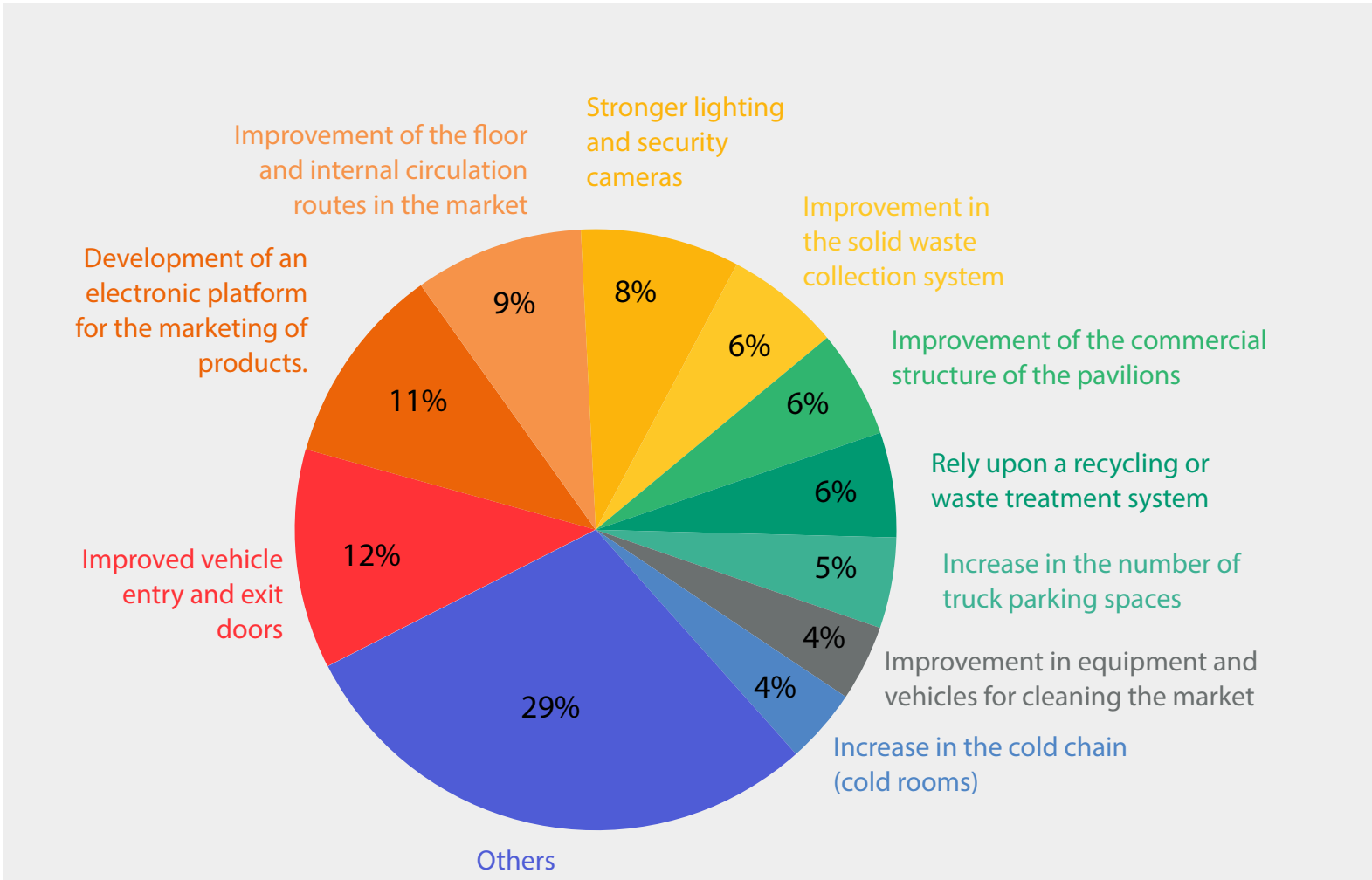
i. Wholesale markets play a critical economic and social role in local food systems and have demonstrated a rapid and diverse response capacity to create and implement health solutions. The use of their own resources and market agents also indicates that most markets can mobilise financial and technical resources in emergencies, which is positive in terms of budgetary autonomy.

ii. On the other hand, data suggests that a large part of the markets supported previously unplanned expenditures and investments due to the rapid evolution of the pandemic. Governments and development agencies must give specific attention to this aspect in order to ensure the financial health of wholesale markets and the resources needed to make the necessary investments to face the current crisis. One critical objective is also to develop a new business and health model that is more efficient and appropriate in terms of environment and health.

The third question, of multiple-choice, refers to investments in supply centres, seeking to know which ones would be a priority for the market to increase its efficiency. A list of 17 alternatives was presented.[1] The results indicate that the wholesale markets are very concerned about two main issues: infrastructure and information systems. The most frequently cited item in this section was "Improved vehicle entry and exit doors" (12 percent), followed by "Development of an electronic platform for product marketing" (11 percent). Considering the answers from the 71 markets, the main ones were highlighted, grouping the others as "others" (see Figure 8).

[1] A maximum of three responses was requested, but many participants marked more than the established number. As this reflected the fact that markets generally have more than three priorities, an estimation was established, with less weight being given when more alternatives were marked than had been requested.

Figura 8. Investment priorities for improving the functioning of wholesale markets.



Source: FAO, based on FAO-FLAMA survey, July 2020.

The markets also show great concern with aspects of health control, improved operations and enhanced computerised market resources so that the transition to virtual transactions can be promoted. There is no doubt that many investments arise from the needs posed by health authorities in each country, but others are linked to an ongoing change in the relationship between buyers and sellers.

When asked about investment priorities, wholesale market authorities listed a significant set of alternatives. Despite the diversity in size, operating structure and ownership of markets, some

aspects can be highlighted as relevant to analyse the need for investment to modernise wholesale markets in the region.

The need for improvements in logistics and access infrastructure reflects a historical demand from several old markets with underdeveloped or obsolete infrastructure. Aspects such as the improvement of entrance and exit doors, the improvement of the floor and circulation routes, lighting, and the commercial structure of the pavilions represent 35 percent of chosen priorities. Thus, they reflect a decades-long deficit of investment in basic infrastructure in wholesale markets.

On the other hand, it is crucial to note that investments in "forward-looking" agendas are on the radar of market authorities. The development of a product marketing platform is individually the second most chosen option (11 percent in the weighted average). This demand reinforces the aspects that were verified in the second edition of this bulletin (FAO and FLAMA, 2020b), where the rapid adherence of wholesale markets to electronic applications and platform-based trading systems was identified. In sum, the conditions imposed by the pandemic forced a decisive modernisation in a short time.

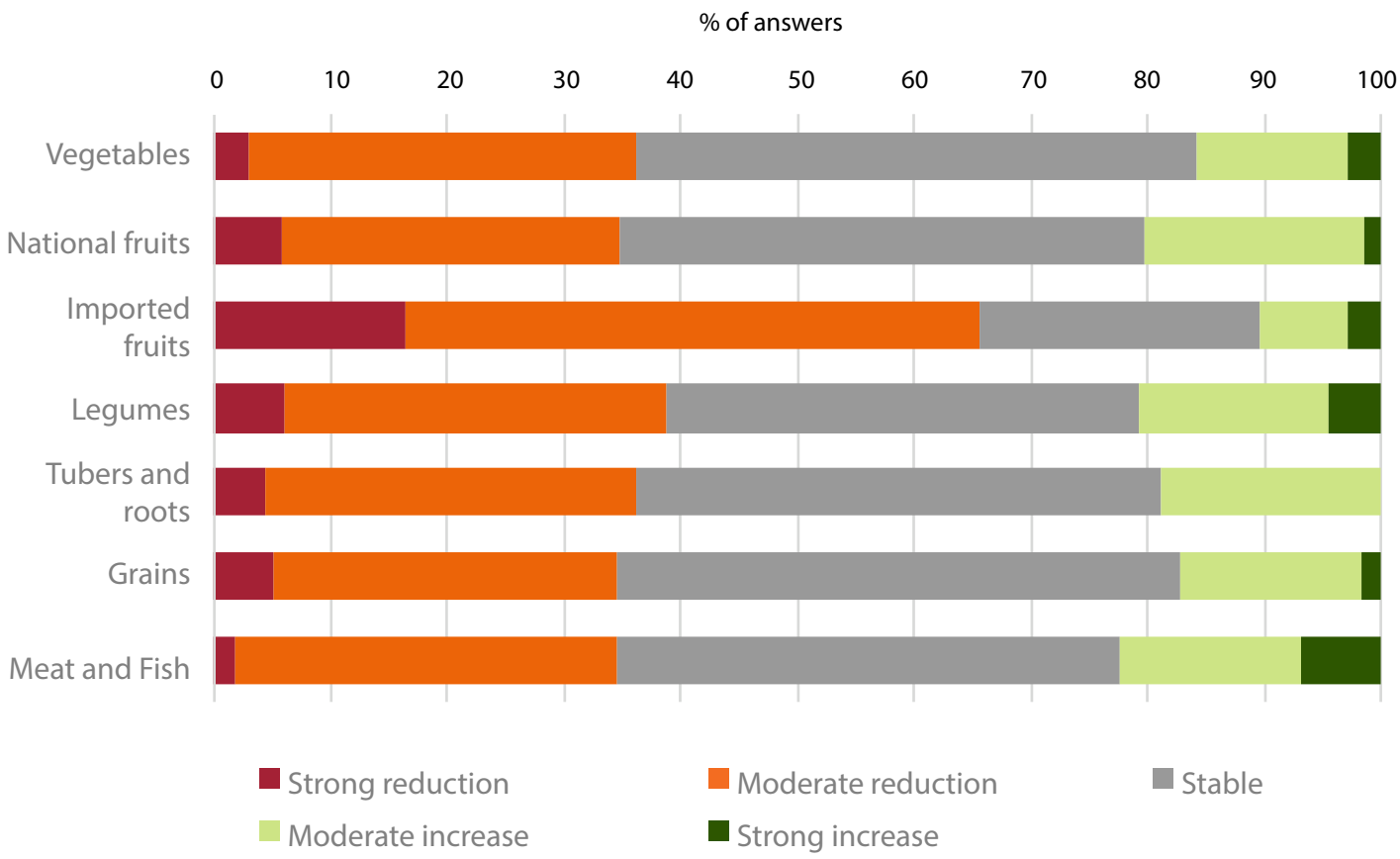
Environmental concerns also arise, such as systems for solid waste collection and recycling (both representing 6 percent) and food preservation (increase in the cold chain, 4 percent).

In other words, the modernisation of the sector must go through several combined strategies. Various markets must remedy and resolve fundamental infrastructure deficiencies that have existed for decades, as well as create investment incentives to restructure and transform traditional marketing models into modern, connected and sustainable markets.

In this third month, the markets still show stable demand, prices and supply. However, some deterioration in supply conditions for some products and occasional price increases have begun to be noted. In a sense, this is a reflection of the reductions in demand that have been recorded in recent months. With the fall in demand for food due to low economic activity and a general decrease in consumer income, the supply of products placed on wholesale markets contracted and, at a second stage, prices also increased.

Most of the products researched in the survey showed stability, although with a moderate drop in supply. In all cases, less than 20 percent of the answers from the markets surveyed pointed to an increase in supply. The most striking case is that of imported fruits, for which two thirds of the markets showed reductions in supply (see Figure 9).

Figure 9. Commercial behaviour of wholesale markets concerning product supply during July 2020.

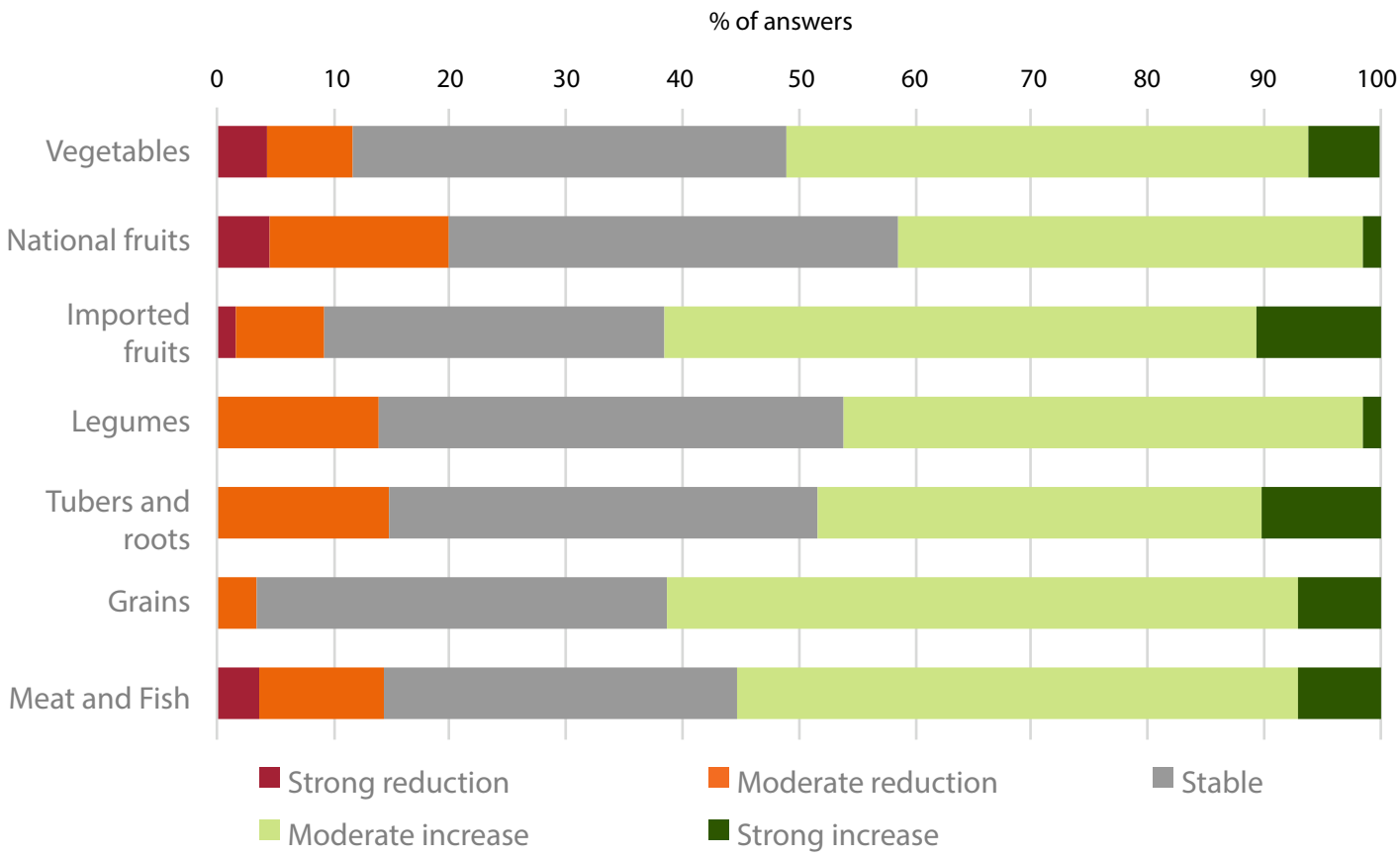


Source: FAO, based on FAO-FLAMA survey, July 2020.

Concerning prices, the trend is upwards. For practically all the products surveyed, more than 50 percent of the markets showed moderate or strong increases. The situation seems to be more complicated in the case of imported fruit. With the devaluation of the exchange rate and sanitary restrictions at the borders of some countries in the region, the fruit supply decreased considerably, with a consequent increase in prices. In Brazil, the prices of kiwi, grapes and pears rose. In other countries, the increase was for peach, apple, grape, strawberry and plum, among others.

Many wholesale food markets comment that price increases are due more to seasonal variations than to speculative aspects. With the arrival of winter in the southern hemisphere, many products are in reduced supply, as is the case with most cold-sensitive vegetables. Increases were also observed in the prices of tubers and roots, such as potatoes, onions and sweet potatoes. On the other hand, there were non-seasonal increases in grains, such as beans, rice and corn. The increase observed in fish and seafood is an important case since these products' marketing was banned, as happened in Ecuador.

Figure 10. Commercial behaviour of wholesale markets with respect to product prices during July 2020.

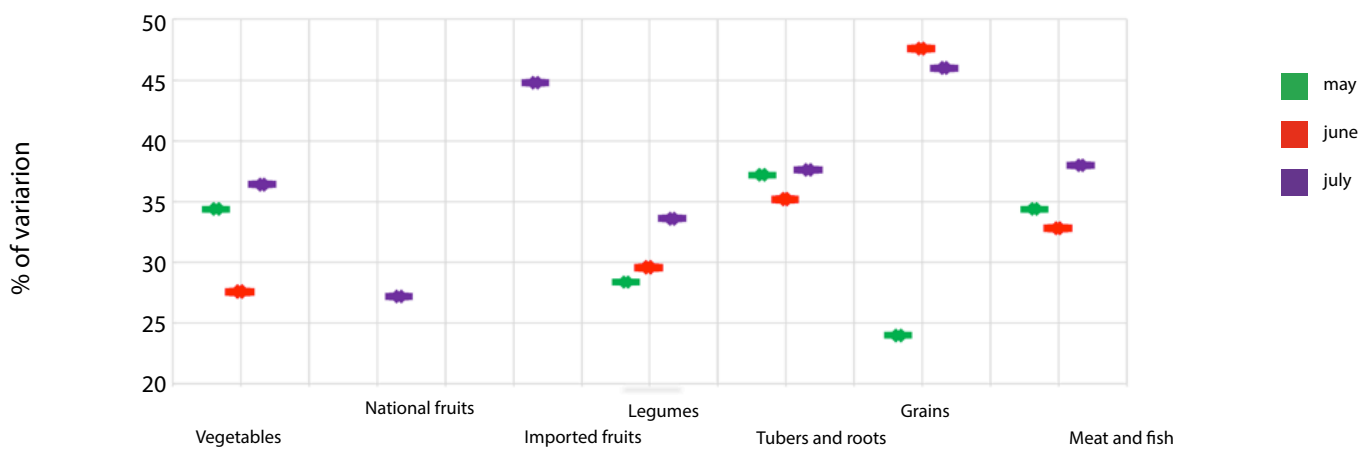


Source: FAO, based on FAO-FLAMA survey, July 2020.

In the monthly surveys, it is possible to assign a score to the answers presented to demand, prices and supply. The rating takes into account the extent to which the values of demand, prices and supply deviate from total stability, and these values can be transformed into percentages. In the case of prices, we take the variation in relation to normal in May, June and July, and each of these months is represented with a specific colour mark. In the first two months, we did not have estimates for imported fruits and domestic fruits.

The results presented in the figure below show a peculiar situation with regard to prices. In the three months surveyed and for all products, the variation was positive, that is, prices went up. Moreover, in all cases – except for grains –, prices in July were on average higher than in June. Given the small sample collected in May, these prices may not reflect the reality of the region. Still, June and July confirm the upward trend, with the most significant increases in the grain category, confirming the observation made regarding individual responses (see Figure 11).

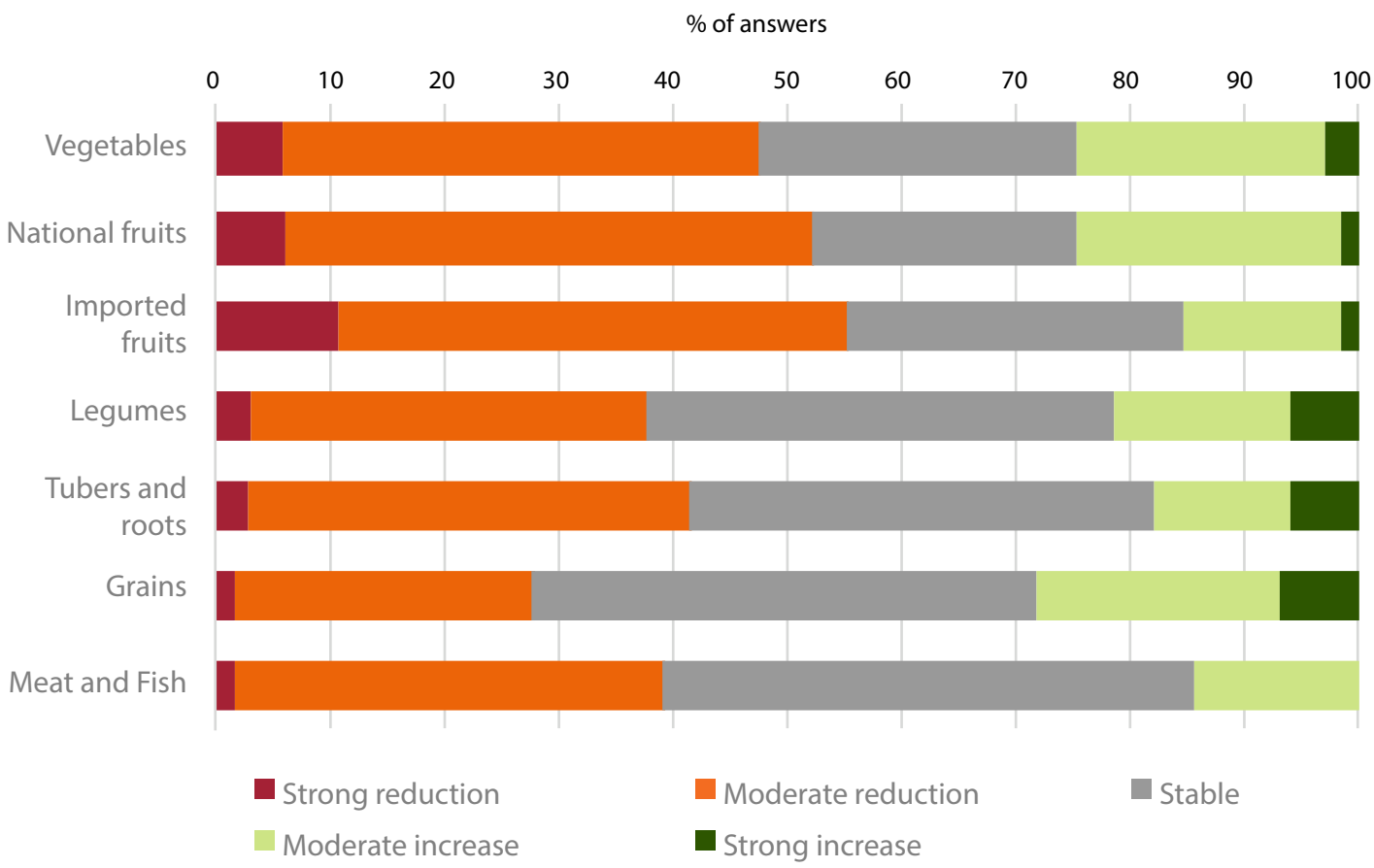
Figure 11. Variation in product price perception (%), May, June and July 2020.



Source: FAO, based on FAO-FLAMA survey, July 2020.

Finally, concerning demand, there is a trend towards reduction in all products. The most pronounced decreases are in imported fruits, in meat and fish. These products had supply problems that ended up being reflected in prices, but, above all, they are higher value items and receive a clear impact from the reduction in consumer income (see Figure 12). Compared to previous months, there was a slight change in scales: Where stability prevailed before, we can now observe a reduction in demand. These movements are expected to change the dynamics of the markets towards a trend of increasing sales of more perishable and lower value-added products.

Figure 12. Commercial behaviour of wholesale markets concerning product demand in July 2020.



Source: FAO, based on FAO-FLAMA survey, July 2020.

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