Impact of CoVid-19 on Seed Trade
On-Line Seminar

Tomohiro Kondo
Japan Seed Trade Association
Agenda

1. Overview of seed trade and brief introduction about seed trade and relevant policy
2. Analysis of the impact of the epidemic on seed trade and movement
3. Suggestions for ensuring smooth global and regional seed trade
4. Post CoVid-19 scenario/prospect (seed trade and movement)
1. Seed trade overview and seed trade and relevant policy introduction in Japan

• Import and Export policy
  • Import permit
    There is no import permit system for seeds.
  • Phytosanitary inspection requirements
    Plant Protection Law and its enforcement regulations stipulate plant quarantine conditions for each exporting country / region and plant species. You can search for specific quarantine conditions on the NPPO website.
    → http://www.pps.go.jp/eximlist/Pages/exp/conditionE.xhtml
1. Seed trade overview and seed trade and relevant policy introduction in Japan

- Import value

![Import value graph](image-url)

- Vegetable and flower seed (million USD)


- Values: 82.2, 70.6, 106.3, 147.7, 195.7
1. Seed trade overview and seed trade and relevant policy introduction in Japan

- Export value
1. Seed trade overview and seed trade and relevant policy introduction in **Japan**

- Top 10 imported crops (vegetable and flower seed in 2019)

<table>
<thead>
<tr>
<th>No.</th>
<th>Crop</th>
<th>Inspection quantity</th>
<th>No.</th>
<th>Crop</th>
<th>Inspection quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spinach</td>
<td>736.1 t</td>
<td>6</td>
<td>Green onions</td>
<td>266.5 t</td>
</tr>
<tr>
<td>2</td>
<td>Carrot</td>
<td>511.4 t</td>
<td>7</td>
<td>Pea</td>
<td>223.0 t</td>
</tr>
<tr>
<td>3</td>
<td>Pumpkin</td>
<td>315.8 t</td>
<td>8</td>
<td>Other Brassicas*</td>
<td>190.5 t</td>
</tr>
<tr>
<td>4</td>
<td>Japanese radish</td>
<td>307.5 t</td>
<td>9</td>
<td>Onion</td>
<td>140.5 t</td>
</tr>
<tr>
<td>5</td>
<td>Cabbage</td>
<td>273.8 t</td>
<td>10</td>
<td>Sunflower</td>
<td>133.2 t</td>
</tr>
</tbody>
</table>

Source: Plant Quarantine Statistics  
* : Other than Japanese radish, Cabbage, Pak choi, Broccoli, Cauliflower, Turnip, Chinese cabbage, Mustard and Kohlrabi
1. Seed trade overview and seed trade and relevant policy introduction in **Japan**

- Top 10 exported crops (vegetable and flower seed in 2019)

<table>
<thead>
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<th>No.</th>
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<th>Crop</th>
<th>Inspection quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Spinach</td>
<td>440.3 t</td>
<td>6</td>
<td>Pak choi</td>
<td>129.8 t</td>
</tr>
<tr>
<td>2</td>
<td>Carrot</td>
<td>376.0 t</td>
<td>7</td>
<td>Onion</td>
<td>113.1 t</td>
</tr>
<tr>
<td>3</td>
<td>Pumpkin</td>
<td>209.8 t</td>
<td>8</td>
<td>Japanese radish</td>
<td>101.1 t</td>
</tr>
<tr>
<td>4</td>
<td>Green onions</td>
<td>175.6 t</td>
<td>9</td>
<td>Other Brassicas*</td>
<td>43.3 t</td>
</tr>
<tr>
<td>5</td>
<td>Cabbage</td>
<td>150.6 t</td>
<td>10</td>
<td>Broccoli</td>
<td>39.0 t</td>
</tr>
</tbody>
</table>

Source: Plant Quarantine Statistics  *: Other than Japanese radish, Cabbage, Pak choi, Broccoli, Cauliflower, Turnip, Chinese cabbage, Mustard and Kohlrabi
### 1. Seed trade overview and seed trade and relevant policy introduction in **Japan**

- Main trade partners in vegetable and flower seed trade

<table>
<thead>
<tr>
<th>Import from (million USD)</th>
<th>Export to (million USD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chile</td>
<td>China</td>
</tr>
<tr>
<td>56.1</td>
<td>27.9</td>
</tr>
<tr>
<td>USA</td>
<td>Hong Kong, SAR of China</td>
</tr>
<tr>
<td>34.9</td>
<td>13.9</td>
</tr>
<tr>
<td>China</td>
<td>USA</td>
</tr>
<tr>
<td>20.7</td>
<td>10.3</td>
</tr>
<tr>
<td>Italy</td>
<td>Denmark</td>
</tr>
<tr>
<td>14.9</td>
<td>10.1</td>
</tr>
<tr>
<td>South Africa</td>
<td>South Korea</td>
</tr>
<tr>
<td>13.0</td>
<td>8.9</td>
</tr>
<tr>
<td>Thailand</td>
<td>Vietnam</td>
</tr>
<tr>
<td>7.6</td>
<td>5.6</td>
</tr>
<tr>
<td>Australia</td>
<td>Netherlands</td>
</tr>
<tr>
<td>6.3</td>
<td>4.9</td>
</tr>
<tr>
<td>Denmark</td>
<td>Brazil</td>
</tr>
<tr>
<td>6.3</td>
<td>4.4</td>
</tr>
<tr>
<td>New Zealand</td>
<td>Indonesia</td>
</tr>
<tr>
<td>4.6</td>
<td>3.1</td>
</tr>
<tr>
<td>Netherlands</td>
<td>Philippines</td>
</tr>
<tr>
<td>4.4</td>
<td>2.5</td>
</tr>
<tr>
<td>India</td>
<td>Iran</td>
</tr>
<tr>
<td>4.3</td>
<td>2.5</td>
</tr>
</tbody>
</table>
2. Analysis of the impact of the epidemic on seed trade and movement

Current: Containing and control measures
Current Infected number, fatality number(brief)
Impact on life and economics
Impact on seed industry
--R & D activities
--Staffs
--logistics
--Export and import
--Spring sowing vs food security
2. Analysis of the impact of the epidemic on seed trade and movement

Current: Containing and control measures

• On April 7, the government declared a state of emergency in some areas, and on April 16th, targeted areas were expanded to the whole country.

• Voluntary loose lockdown: The government is not able to force people to stay at home or to order businesses to close, but most people and companies have changed their behavior in their decisions.

• Border enforcement measures: Entry ban for foreigners from 100 countries or regions.
2. Analysis of the impact of the epidemic on seed trade and movement

Current Infected number, fatality number (brief)

https://toyokeizai.net/sp/visual/td/19/covid19/
2. Analysis of the impact of the epidemic on seed trade and movement

Impact on life and economics

- School closure request and stay at home request by the government brought confusion and change in people's lives.
- One-year postponement of the 2020 Summer Olympics
- At this moment, it is difficult to measure the economic impact of the pandemic, but economists forecast a severe recession.
  - Factors: Decline in tourism, stay-at-home request, disruption of international supply chain, decline in consumption
  - Businesses being suffered: Hotels, travel agencies, retail outlets, restaurants, bars, manufacturers, etc.
2. Analysis of the impact of the epidemic on seed trade and movement

Impact on seed industry

--R & D activities
Breeders and product development staffs would be restricted to visit their trials in the target areas.

--Staffs
Sales forces cannot visit customers. They try to exchange the information by phone, email and web meeting instead.

--logistics
Although there is some delay, there are no major problems with domestic distribution. Visiting oversea seed production sites by production department would be restricted. This may cause larger quality control workload and delayed shipments of goods.
2. Analysis of the impact of the epidemic on seed trade and movement

Impact on seed industry
--Export and import

• Communication delay due to the lockout measures
• Preparation of documents (ex. Import Permit) takes longer than normal
• Shipping delay (sometimes, for more than a month) due to local logistics shut down (in the partner countries) or reduced flights
• Change of shipping method (Air Freight > Ocean Freight) due to reduced flights

➢ Consequence: Delayed delivery causes missing of the sowing slot
2. Analysis of the impact of the epidemic on seed trade and movement

Impact on seed industry

--- **Export and import**

- Request of postponed delivery of pre-order due to logistics stagnation or risk of economic crisis
- Request of delivery ahead of schedule with concerns about the stagnation of logistics and import/export procedures

--- **Spring sowing vs food security**

- No significant impact on spring sowing of agronomical crops is recognized (private sector does not play an important role in the crops, though)
- Concerns about securing foreign workers for some horticultural crops
2. Analysis of the impact of the epidemic on seed trade and movement

Impact of COVID-19 on Seed Industry
What trend and changes happened for the seed industry after outbreak of Covid-19?

- **Home gardening**
  - Stay at home requests can inspire people to start or to expand home gardening
  - Campaign to stimulate consumption of ornamental flowers ("Vitamin F", "Stay Home with Flowers")

- **Work style-virtual meeting**
  - Introduction of telework, flexible working hours, and virtual meetings is being forced in order to reduce the chances of infection
  - Support for employees who are parents of small children during the school closure measure
2. Analysis of the impact of the epidemic on seed trade and movement

Impact of COVID-19 on Seed Industry
What trend and changes happened for the seed industry after outbreak of Covid -19?

• Social distancing requirements
  Change the layout of working spaces in offices and warehouses
  Reduce the number of workdays and hours per person
  Avoid public transportation for commuting and switch to commuting by car
3. Suggestions for ensuring smooth global and regional seed trade

• Strengthen the activities of the ISF, APSA and national Seed Associations to spread the social importance of seed business to the public (in connection with the SDGs)
• Make the seed industry recognized as an essential business in each country, and enable continuous activities under a long (maybe) battle against the pandemic
• mutual understanding and cooperation are more necessary in the industry since seed business environments require more time and cost than ever before
3. Suggestions for ensuring smooth global and regional seed trade

- As the seed industry, encourage authorities to prioritize the custom clearance duties for seeds (in connection with food security).
- As the seed industry, encourage authorities to make actions for smooth domestic seed distribution (such as issuing special permits) in the countries where the lockdown measures are in place.
- Prevent the government from politically using nationalism in seed-related policies.
4. Post COVID-19 scenario (seed trade and seed movement)

- **Temporary impact**
- **Ask the government to provide “green channel” for agricultural materials.**
  
  No significant restriction recognized for agricultural materials in Japan

- **Supply Chain**
  Optimization in seed supply chain across the border may happen
4. Post COVID-19 scenario (seed trade and seed movement)

- **Seed Production**
  Diversification of seed production sites and distribution centers = risk reduction

- **Seed Movement**
  Concern about excessive requests for pathology tests at import/export

- **Food security and sustainable agriculture**
  Countries depending on imported seeds may try to improve their self-sufficiency and secure safety stock
Thank You
Impact of CoVid-19 on Seed Trade
On-Line Seminar

Osman Mewett
Australian Seed Federation
Agenda

1. Overview of seed import and export and agricultural trade
2. Analysis of the impact of the epidemic on seed trade and movement
3. Suggestions for ensuring smooth global and regional seed trade
4. Post CoVid-19 scenario/prospect (seed trade and movement)
Seed trade overview

IMPORTS

• Australia has developed import conditions for seeds, which effectively manage biosecurity risks that are associated with these goods. The conditions outline what can be imported to Australia and how they can be imported safely.

• Australia’s Biosecurity Import Conditions system (BICON) outlines all import conditions for the importation of seeds into Australia. If you are intending to import seed, you should search BICON for the seed you want and find out:
  • whether the seed you wish to import are permitted
  • the country or countries the seed are permitted to be imported from
  • whether an import permit is required
  • any documentation requirements
  • any treatment requirements
  • any inspection requirements
  • any other import requirements for the seed.
EXTRACTIONS

• The Department of Agriculture, Water and the Environment maintains the Manual of Importing Country Requirements (MICoR) as a resource for exporters of Australian agricultural products.

• When exporting agricultural products (including seed) from Australia, exporters must comply with the Export Control Act 1982 and associated legislation and the importing countries’ requirements.
Agriculture trade overview

- Australia currently exports more agricultural products than we import, with around 65 per cent of Australia's total agricultural production sent overseas.
- In 2016 the value of Australia's agriculture exports was AU$44.7 billion – approximately 14 per cent of our total goods and services exports.

<table>
<thead>
<tr>
<th>Major agriculture export products</th>
<th>A$ in 2015</th>
<th>Share of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beef</td>
<td>7,401</td>
<td>16.6</td>
</tr>
<tr>
<td>Wheat</td>
<td>4,853</td>
<td>10.9</td>
</tr>
<tr>
<td>Meat (excluding beef)</td>
<td>3,575</td>
<td>8.0</td>
</tr>
<tr>
<td>Wool</td>
<td>3,021</td>
<td>6.8</td>
</tr>
<tr>
<td>Alcoholic beverages</td>
<td>2,587</td>
<td>5.8</td>
</tr>
<tr>
<td>Sugars, molasses and honey</td>
<td>2,332</td>
<td>5.2</td>
</tr>
<tr>
<td>Vegetables</td>
<td>2,260</td>
<td>5.1</td>
</tr>
<tr>
<td>Dairy</td>
<td>2,216</td>
<td>5.0</td>
</tr>
<tr>
<td>Live animals (excluding seafood)</td>
<td>1,875</td>
<td>4.2</td>
</tr>
<tr>
<td>Fruit and nuts</td>
<td>1,762</td>
<td>3.9</td>
</tr>
</tbody>
</table>
China is by far the largest importer of Australian agricultural products, accounting for 20 per cent of our total agricultural exports in 2015.

<table>
<thead>
<tr>
<th>Major agriculture export markets</th>
<th>CY2015 A$m</th>
<th>Share of total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>8,906</td>
<td>19.9</td>
</tr>
<tr>
<td>Japan</td>
<td>4,500</td>
<td>10.1</td>
</tr>
<tr>
<td>United States</td>
<td>3,893</td>
<td>8.7</td>
</tr>
<tr>
<td>Republic of Korea</td>
<td>3,410</td>
<td>7.6</td>
</tr>
<tr>
<td>Indonesia</td>
<td>3,312</td>
<td>7.4</td>
</tr>
<tr>
<td>India</td>
<td>1,881</td>
<td>4.2</td>
</tr>
<tr>
<td>New Zealand</td>
<td>1,537</td>
<td>3.4</td>
</tr>
<tr>
<td>Vietnam</td>
<td>1,504</td>
<td>3.4</td>
</tr>
<tr>
<td>Hong Kong (SAR of China)</td>
<td>1,283</td>
<td>2.9</td>
</tr>
<tr>
<td>Singapore</td>
<td>1,190</td>
<td>2.7</td>
</tr>
</tbody>
</table>
Analysis of the impact of the epidemic on seed trade and movement

• Restrictions on gathering, movement and border controls coincided with the peak sowing time for Australia’s winter cereal crops and pastures.

• TO AVERT INDUSTRY CRISIS ASF successfully advocated to ensure the entire seed value chain was categorized as ‘essential’ and could continue operating.

• At the height of the crisis, the ASF issued a daily information update for members regarding developments in the seed and agriculture sector that related to Covid-19 responses that could impact on members’ businesses.

• In additional to direct political advocacy at the Federal and State level, ASF worked closely with other agricultural input supplier industry associations (CropLife Australia and Fertilizer Australia), farming organisations and commodity groups.
Impact of Covid 19 on Seed Industry

**Workplace changes** - workplaces must operate in a way that minimises the risk of COVID-19 transmission. Workplaces should be:

- minimising, or eliminating if possible, physical interactions among staff and with and between customers
- ensuring appropriate health, hygiene and safety measures are in place
- restricting activity to only what is essential.

**These practices may include:**

- working from home as far as possible
- limiting, or eliminating if possible, physical interaction between staff, e.g. through physical distancing, split shifts, staggered meal breaks and flexible working arrangements
- limiting, or eliminating if possible, physical interaction with and between customers, e.g. through online or phone orders, contactless delivery or managed entry (while also avoiding crowding outside), and physical distancing both inside and outside the premises
- hygiene basics of hand washing and sanitisers
- frequent cleaning of premises, especially counters and EFTPOS terminals, and other high-touch surfaces providing personal protective equipment (PPE) for workers as appropriate.
Suggestions for ensuring smooth global and regional seed trade

Access to affordable freight is the greatest area of concern. The shutdown of nearly all commercial passenger aircraft has meant that air freight is very scarce and very expensive.

The lack of air freight has also meant that sea freight is increasingly difficult to access.
Post CoVid-19 scenario (seed trade and seed movement)

• The ASF has received confirmation from the Department of Agriculture, Water and Environment that they have taken additional steps to support the priority clearance of imported seed for sowing, in response to the current COVID situation.

• The Department understands the pressures of freight movement at this present time and understands the importance of getting timely inspections and release of imported seed… and therefore, supporting the priority of seeds being cleared at the border.

• The ASF will maintain its pressure on the Department to ensure the unfettered movement of seed import and export continues.
Thank You
Impact of Covid-19 on Seed Trade
On-Line Seminar

Mary Ann P. Sayoc

Philippine Seed Industry Association
Public Affairs Lead, East-West Seed
Agenda

1. Overview of seed trade and brief introduction about seed trade and relevant policy

2. Analysis of the impact of COVID-19 on seed trade and movement

3. Suggestions for ensuring smooth global and regional seed trade

4. Post COVID-19 scenario/prospect (seed trade and movement)
Seed trade overview: Philippines

- 2018 sowing seed
  - Import value: 119.73 million US dollars
  - Export value: 12.69 million US dollars
  - Trade deficit: 107.04 million US dollars
- Import growth: 69.5%
### 2019 Top 10 imported crop seeds

<table>
<thead>
<tr>
<th>Crop</th>
<th>Major Country of Origin</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Rice</td>
<td>China, India, Korea, Myanmar</td>
</tr>
<tr>
<td>2. Corn</td>
<td>Vietnam, Brazil, USA, South Africa, France, India, Thailand, New Zealand, Pakistan, Indonesia, Guatemala, Chile</td>
</tr>
<tr>
<td>3. Mint</td>
<td>USA</td>
</tr>
<tr>
<td>4. Potato</td>
<td>Canada, Netherlands</td>
</tr>
<tr>
<td>5. Onion</td>
<td>South Africa, USA, Netherlands, Japan, Israel</td>
</tr>
<tr>
<td>6. Pak choi</td>
<td>New Zealand, Italy, Hong Kong, SAR of China, Thailand, Japan, Malaysia</td>
</tr>
<tr>
<td>7. Yard long bean</td>
<td>China, Indonesia, Thailand</td>
</tr>
<tr>
<td>8. Radish</td>
<td>New Zealand, Korea, Japan, Hong Kong, SAR of China, Malaysia, Thailand</td>
</tr>
<tr>
<td>9. Carrot</td>
<td>Japan, Italy</td>
</tr>
<tr>
<td>10. Water convolvulus</td>
<td>Indonesia, Thailand, Japan, Malaysia</td>
</tr>
</tbody>
</table>

Source: Bureau of Plant Industry – National Plant Quarantine Services Division, 2019
<table>
<thead>
<tr>
<th>Crop</th>
<th>Major Country of Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Papaya</td>
<td>Brazil, Guatemala, Colombia, Peru, Thailand, Vietnam, USA, Tanzania, Myanmar, Chinese Taipei</td>
</tr>
<tr>
<td>2. Chili</td>
<td>Thailand, Myanmar, USA, Malaysia, Palau</td>
</tr>
<tr>
<td>3. Corn</td>
<td>Vietnam, Japan, France, Chinese Taipei, Myanmar, China, Indonesia, Thailand, Singapore, India</td>
</tr>
<tr>
<td>4. Pueraria javanica</td>
<td>Malaysia, Singapore, Thailand</td>
</tr>
<tr>
<td>5. Bitter gourd</td>
<td>India, Thailand, Myanmar, Pakistan, Vietnam, Hong Kong, SAR of China, UK, USA</td>
</tr>
<tr>
<td>6. Rice</td>
<td>Bangladesh, Vietnam, India, Indonesia, Korea, Myanmar, Burundi, China, Kenya, Mozambique</td>
</tr>
<tr>
<td>7. Calopogonium</td>
<td>Malaysia</td>
</tr>
<tr>
<td>8. Ridge gourd</td>
<td>India</td>
</tr>
<tr>
<td>9. Mungbean</td>
<td>Myanmar, Japan, Sweden</td>
</tr>
<tr>
<td>10. Okra</td>
<td>Japan, Tanzania, Thailand, Guam, USA, Sweden</td>
</tr>
</tbody>
</table>

Source: Bureau of Plant Industry – National Plant Quarantine Services Division, 2019
• Import and Export Policy

➢ Lead agency: Bureau of Plant Industry – National Plant Quarantine Services Division

➢ Sanitary and Phytosanitary Import Clearance (SPSIC) - online application

➢ Phytosanitary certificate (export) – actual commodity inspection
Analysis of the impact of COVID-19 on seed trade and movement

- Enhanced Community Quarantine (ECQ) in Luzon Island from March 15 – May 15, 2020
  - home quarantine
  - closure of non-essential business establishments
  - suspension of public transportation
  - social distancing, wearing of face masks, and hand disinfection
• Impact on life and economics
  ➢ Positive cases: 14,669
  ➢ Recovered patients: 3,412
  ➢ Deaths: 886

Challenges:
- weak health care system
- limited bed capacity in hospitals
- no proper PPE for medical workers
- unavailability of test kits
- inadequate testing laboratories
• Impact on the economy
  ➢ 2/3 of businesses did not operate; 20% of these laid off workers
  ➢ 45% of non-government and self-employed workers lost their income
  ➢ IMF projects 0.65% of growth in GDP in 2020; 2019 growth was 5.9%
  ➢ Household consumption slowed down by 0.20%
  ➢ Agriculture contracted by 0.40%
• Impact on seed industry
  ➢ R&D activities like breeding trials/evaluation were interrupted
  ➢ Staff: restrictions in personnel movement; skeleton workforce in the Plant and R&D stations
  ➢ Logistics
    - Stoppage of inter-island shipping
    - Closure of ports
    - Checkpoints/roadblocks
    - Closure of agriculture supply stores
➢ Export and Import
   - Delayed processing of import/export permits
   - Congestion of ports
   - Temporary closure of one international port due to positive COVID-19 case in one of the staff
   - Limited cargo flights

➢ Spring sowing vs. food security: there are enough sowing seeds for wet season planting of rice, corn, and vegetables
Philippine Economic Stimulus Act of 2020

- PhP1.3 trillion (US $25.7 billion)
  - Infrastructure program on healthcare, education, and food security
  - Wage subsidies, interest-free loans to MSMEs

- Agriculture: PhP66 billion (US $1.3 billion)
  - Plant, Plant, Plant Program: PhP31 billion (US $614 million)
  - Rice Resiliency Program: PHP8.5 billion (US $168 million)
- Vegetable gardening and urban agriculture program: PhP1.5 billion (US $30 million)
- Food logistics: PhP20 billion (US $396 million)
- Cash for Work Program: PhP15 billion (US $297 million)
Impact of COVID-19 on Seed Industry

• Heightened interest on home gardening
  - Increased demand for vegetable seeds in value packs
  - E-commerce/digital marketing is now the trend

• Work from home is the new normal
  - Virtual meetings: more frequent catch-ups
  - Companies have adopted telecommuting policies
• Social distancing requirements
  - Two shifts
  - Adjustments made in the floor layout of seed processing/packaging facilities
  - Installation of plastic screens between work stations
  - Wearing of masks, hand hygiene, disinfection of work areas
Suggestions for ensuring smooth global and regional seed trade

- The seed industry should continue to push their governments to recognize seed as part of the critical infrastructure.
- More aggressive lobbying on the part of national seed associations: PSIA tapped the services of a media partner to facilitate press releases and TV interviews.
• Policies and regulations should not hamper the movement of seeds. Government should provide green channel for agricultural inputs

• E-phyto should be adopted by countries

• Logistics companies and cargo vessels should consider seed as priority
Post COVID-19 scenario (seed trade and seed movement)

• Temporary impact: slow down in seed trade due to quarantine restrictions

• Highlighted the importance of agriculture in ensuring food security

• Increase in the number of home gardens

• E-commerce will be part of the new normal
• Increased use of digital platforms in marketing
  - Selling online
  - Virtual field days

• Disruptions in seed production due to quarantine restrictions

• For those import-dependent crops, current seed supply may not be adequate to meet farmers’ needs

• Food security: Plant, Plant, Plant Program of the Department of Agriculture
  - MOA with the Philippine Seed Industry Association to set up community vegetable gardens in four cities in Metro Manila
“Nothing in life is to be feared, it is only to be understood. Now is the time to understand more, so that we may fear less.”

- Marie Curie
Thank You