

Consultation on Pesticides Regulations

Final consultation report

15 November 2024



GOVERNMENT OF BERMUDA

Ministry of Health

Executive summary

Between 28 June and 30 September 2024, the Ministries of Health and National Security engaged stakeholders in the development of regulations for pesticide products used across different industries affecting food, water, the community and environment. Feedback was received through a diverse range of methods to gather a spectrum of views. This involved discussions on the Bermuda Citizens Forum (forum.gov.bm), a prioritization survey, direct submissions to the Ministries and stakeholder specific online focus groups. Involved stakeholders included regulators, Government users, NGOs, golf course operators, landscapers, farmers, structural pesticide businesses, retail businesses and members of the public.

During the first phase of consultation, the importation of pesticides, training and licensing of individual pesticide applicators emerged as priorities, which were considered by subsequent focus groups in more depth. The following summary represents a total of 11 overall recommendations gathered throughout the consultation process:

Importation

1. Define and publish a list of general use pesticides that can be imported without having to apply for permission to import. Make sure that parameters for including pesticides on this list are clearly defined.
2. Define lists of restricted use pesticides that are pre-approved for certain occupational groups dependent on licensing requirements.
3. Define and publish a list of prohibited pesticides that cannot be imported or used.
4. Ensure the legislative framework for importation restrictions is clear and communicated with all stakeholders including Customs.
5. Provide greater transparency on the decision-making process for pesticide importation applications, including sources consulted and criteria used.
6. Explore the possibility of moving the application process online.
7. Consider establishing a specialist officer as an additional resource to facilitate importation applications.
8. Revive the original purpose of the Government Marketing Center to import and sell pesticides for professional applicators. Consult with stakeholders to maximize its usefulness.

Training & licensing

9. Establish training and licensing requirements for relevant occupational groups:
 - Consider training and licensing schemes that already exist in Bermuda.
 - Utilize international training and licensing programs offered by trusted providers to the extent that they are relevant in our context.
 - Ensure that all training and licensing has a Bermuda component covering Bermuda's unique circumstances.
10. Clearly define requirements for who needs to be licensed and how many people need to be licensed in each establishment. Establish guidelines for re-licensing.
11. Better educate the public about pesticides.

Next steps will include the development of regulations for the importation of pesticides, as well as training and licensing in the use of pesticides while continuing consultation with stakeholders.

Consultation timeline

- 28 June 2024 – 4 August 2024: Phase 1 – Online prioritization questionnaire & comments on Bermuda Citizens Forum
- 5 August 2024 – 18 August 2024: Phase 2 – Questionnaire results and Forum comments compiled and published (<https://www.gov.bm/health-public-consultations>)
- 4 September 2024 – 20 September 2024: Phase 3 – Online focus groups by stakeholder groups as follows
 - Regulators – small group (DOH & DENR): Friday 23 August & Friday 30 August
 - Regulators – wider group: Wednesday 4 September
 - GOB users: Friday 6 September
 - NGOs: Monday 9 September
 - Golf courses & landscapers: Wednesday 11 September
 - Farmers: Friday 13 September
 - Structural: Wednesday 18 September
 - Public: Friday 20 September
 - Retail: Friday 20 September
- 23 September 2024 – 11 October 2024: Phase 4 – Final consultation report compiled and published online with recommendations (<https://www.gov.bm/health-public-consultations>)

Consultation phase 1 & 2: Bermuda Citizens Forum & prioritization survey

The first phase of the consultation consisted of discussions on the Bermuda Citizens Forum (forum.gov.bm) and a prioritization questionnaire. The results of that phase were summarized in a report, published here: [Consultation on Pesticides Regulations.pdf \(www.gov.bm\)](#). During that phase of the consultation, importation of pesticides and training and licensing of individual pesticide applicators emerged as priorities.

Consultation phase 3: Focus groups

The focus groups were organized by type of stakeholder and considered questions on pesticide importation as well as training and licensing of individual pesticide applicators with an open discussion.

Suggested questions were phrased as follows, but were reframed in some instances based on the specific background of the stakeholder group.

Importation:

- How can the importation process be improved or made more efficient?
- How can we ensure that Bermuda's unique circumstances are appropriately considered?

Training & licensing of individual applicators:

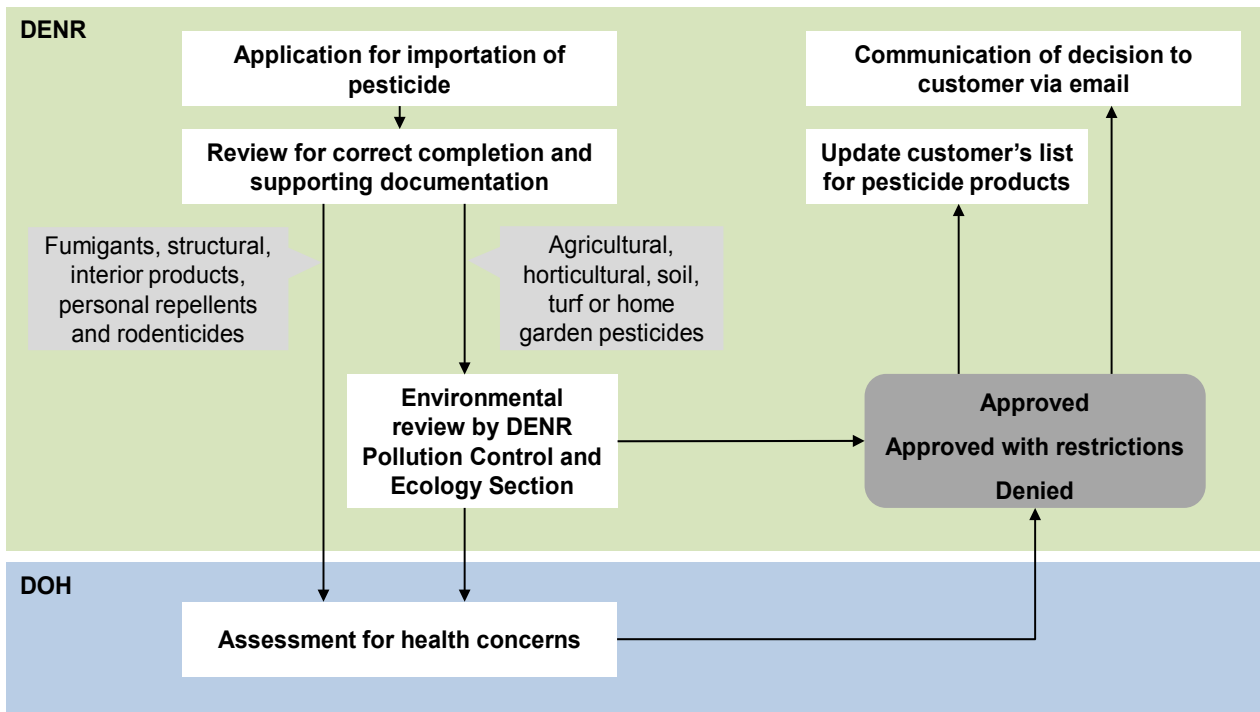
- Which training/licensing schemes should be utilized?
(focus on one scheme or accept equivalencies?)
- Who should be required to be licensed?

Participants were invited to provide additional written feedback after the meetings directly to the Ministry of Health.

Summary of focus group discussions

Importation

Current importation process



How can the importation process be improved or made more efficient?

A general concern voiced by importers from all stakeholder groups was the length of time taken for applications to be approved or denied, whereby the process can take weeks or sometimes months. E.g., some farmers emphasized that they don't spray pesticides indiscriminately on a constant schedule, but generally on an as-needed basis when an unexpected issue arises. When there is an issue (pest, disease, hurricane, drought, excessive rainfall), quick action is required and farmers have a short window to address it. When they don't have an appropriate product in store and none is in stock on island, a product needs to be imported quickly. Delays in the processing of applications are recognized as being related to the large workload of the involved departments. It was suggested to create a specific position in government for pesticide applications who could also work with applicants to find alternatives in the event of a denial. The position could initially be filled with someone with relevant expertise from overseas while training up a Bermudian who could eventually step in and fill the position long term. It was suggested to establish weekly meetings to review applications where the Department of Environment and Natural Resources (DENR), the Department of Health (DOH) and potentially an industry subject matter expert could come together and make timely decisions on pressing issues.

The suggestion was made to define a list of generally allowable pesticides (“general use pesticides”) that anyone can import without having to go through the application and approval process. The large majority of pesticide import applications reviewed by DOH are general use products; removing these from the application process would free up significant resources. There need to be clear criteria for what should be included on such a list and products should be assessed before being added (including “biologically acceptable”, bio-pesticide products). The list should not include any products that need to be diluted or that require specialized equipment. It was suggested to consider reducing the number of general use pesticides and retail sale products.

The suggestion was made to define a list of “restricted use pesticides” that have been pre-approved for use in Bermuda and that don’t have to go through the full application and approval process. This will create efficiencies for importers and regulators. Pre-approved products could be re-assessed periodically, but between assessments, products are automatically approved (based on certain requirements). (However, consider implications for importers when a product has been approved for importation shortly before pre-approval is revoked). Pre-approved lists should be specific for specific occupational groups or industries (e.g., lists for farmers, golf courses, landscapers, structural pest control companies, etc.). Pre-approval could be tied to licensing categories, i.e., dependent on the importer having done a certain type of training and/or obtained a certain type of certification (making certification a requirement for importing restricted use pesticides¹). In general, there was a sentiment that the same product should be approved or denied consistently for importers in the same occupational category or with the same type of license. However, there was acknowledgement that individual applications make sense because not everyone in an industry has the same experience with every chemical (need to prove proficiency).

There were discussions whether or not these lists should be publicly available. It would be efficient to have lists of approved products that have already been vetted and that importers can pick from. However, due to competitive considerations, there was strong opposition from some participants across industries against publishing the lists. It was felt that those doing the research and going through the application process shouldn’t have to share their results. If not published, the lists should certainly be kept in an internal database to expedite the application process. It was argued that the information about which pesticides have been approved for use in Bermuda would also be interesting for the public. It was suggested that the default should be publishing of the approved chemicals. An opt-out option could be included if the information is considered proprietary, but the applicant must provide a rationale. Unless this opt-out is approved, the default will apply, i.e. chemicals will be published.

There should also be a list of pesticides that are not allowed to be imported. There was general agreement that this prohibited list should be published. Thereby, importers do not spend time and money on applications that will not be approved.

Several participants noted that importers would benefit from having more transparency concerning the details of the assessment process: It should be clear which sources are being consulted by DENR and DOH in addition to what needs to be submitted as part of the application: Which criteria are applied? What thresholds are used? What are triggers for denial? Having these details would allow importers to find the same information through their own research and determine ahead of time if a product will be approved or not (saving the importer and regulator time by not having to go through an assessment process that will be denied). It might also help importers find alternative products that won’t be denied. Ideally, the application should ask for all the information that is relevant for decision making. It was suggested that transparency in the assessment process would be aided by adopting another country’s process.

1 Parallel to refrigerant importation under the Clean Air Act: Approval of import permits for refrigerants is conditional on the applicant being able to prove that previously imported refrigerants were sold to permitted refrigerant handlers only.

There was agreement that an appeals process for denied applications might be useful. It could be helpful if someone feels there is a mismatch between information provided and decision made. However, there were concerns about adding more work to the application process for DENR and DOH when resources are already stretched (the preference would be more transparency to know what makes a decision).

It was suggested that the application process might be more efficient if it was online. If online, a number of steps could be automated (for instance, automatic approval if a product falls within certain parameters. It could be linked to a database that can be accessed by stakeholders/regulators across Ministries, including DENR, DOH and Customs. Data from the online process could be used for quality improvement and record keeping. An online process would allow to include more relevant details, if desired.

There was agreement that the public needs to be better educated about pesticide importation. The number of products imported privately has increased significantly, even for products that are readily available locally through retail. Many people importing pesticides are not aware that products need to be approved before importation which complicates the process when items arrive in Bermuda without the required documentation. The key for enforcement of importation restrictions by Customs is clear legislation laying out what is allowed and what is not allowed to be imported. Regulators need to make sure that Customs knows what the requirements are and where they are documented in law. Regulators need to ensure that definitions are clear (e.g., general use pesticide, bio-pesticide, restricted use pesticide, ...).

Several suggestions were made for what regulators should consider when assessing an application: It was argued that regulators should assume that the label will be followed by properly trained applicators. A suggestion that was not supported by everyone was that regulators should be asking for more details about intended application such as location, target and method. From the regulators' perspective, more details may be helpful (e.g., a potential ground water contaminant would not be approved for an area that floods easily, but might be approved otherwise). From the importers' perspective, more details may allow for arguments to be presented why the product is necessary in a specified context. It was noted that such exceptional approvals would need to be linked to record keeping and enforcement. However, other importers argued that more details would make applications even more cumbersome. Certification that covers appropriate application methods should be enough to presume that pesticides will be used appropriately. It was further suggested that if the location of proposed application site was not supplied for an importation application, then the precautionary principle should apply and regulators would default to and use criteria for a sensitive site for both human health and environmental aspects. This was considered reasonable given the density of our population and our environmental sensitivity. In addition, regulators should consider the entire formulation not only active ingredients. It was suggested to consider other countries' importation policies for pesticides (as Bermuda may lack resources locally for full assessment). In particular when pesticides have been banned in other countries, Bermuda shouldn't allow them either.

How can we ensure that Bermuda's unique circumstances are appropriately considered?

There were discussions to what extent Bermuda could learn from other countries' importation policies. There needs to be a balance between using other countries' regulations (given Bermuda's size and lack of specialized resources) and creating Bermuda-specific policies. The assessment of pesticides for importation needs to take into account Bermuda specific aspects like roof water collection systems. For instance, pesticides application via drones doesn't seem appropriate for Bermuda as it is too unspecific. Given Bermuda's fragile environment, it was recommended to apply the precautionary principle to pesticide importation. As enforcement can be extremely challenging, regulating high risk pesticides through a strict importation process may be a better solution. It was noted that it would be difficult to simply copy and paste another jurisdiction's regulations. Participants emphasized the need to take into account Bermuda's specific circumstances.

It was emphasized that when restricting available pesticides and regulating pest control industries, regulators need to make sure that professionals are able to address pest issues as they arise and not let situations get out of hand (e.g., flies on cruise ship). A permanent issue may arise when a detrimental pest comes into our environment and can't be treated.

Other importation related matters

Farmers stated that as a fully functioning entity, the Government Marketing Center (also known as Agricultural Service Center) could be a very useful resource for their industry. The Marketing Center had been intended to import pesticides and then sell them to farmers, however, the function didn't fully materialize and now farmers are importing pesticides themselves. It would be beneficial if the Marketing Center had an inventory of the more common pesticide products in stock (bactericides, fungicides, herbicides, etc.), but also, biological pesticides. Currently, there is a small inventory of common products, but the list could be updated through consultation with farmers. There used to be ample supply of pesticides in the past, but there seems to be an issue with funding for the Marketing Center. It would also be beneficial to have certain specialty products and rescue products available for unforeseen circumstances (such as difficult weather conditions or disease/pest pressures) that need to be dealt with quickly. It would help farmers with timing to be able to source pesticides locally. Self-importation can be challenging due to the prolonged application process. Furthermore, products may not be easily available from exporting countries at the required time due to different growing seasons. Having sufficient stock at the Marketing Center would be preferable to self importation, but the limited shelf life of products needs to be considered.

The Marketing Center as a central facility for pesticides is also advantageous from a safety perspective. It is important to note that the Marketing Center also has to go through the same application process for pesticides. There was a suggestion to use the Marketing Center as a central depot for all pesticides which will import, store, sell, and organize the disposal of pesticides (including general use pesticides).

It was highlighted that during importation we also need to think about disposal. Hazardous leftovers may need to be exported back to the U.S. in a costly, time consuming and burdensome process. New EPA regulations have made the exportation of pesticides even more difficult and Bermuda is storing more expired or confiscated pesticides until regulations can be met.² Ideally, users would not bring in more pesticides than needed. There was a suggestion to look into what people are asking to import and why in order to potentially address underlying issues (e.g., rodenticides).

Farmers expressed the desire for regulations to be fair and not disadvantage local farmers compared to overseas producers. The issue was raised that certain chemicals may not be allowed to be imported by local growers, but produce may be imported where that same chemical has been used. In response, it was highlighted that a chemical may be denied for importation in order to mitigate risks other than consumption (other risks include exposure through application or exposure through the environment; for instance, it may be possible to apply certain products in a large open field overseas whereas this is difficult in Bermuda due to proximity to residential areas or concerns about ground water resources). Exporting countries such as the U.S. have thresholds for chemicals on produce in place. It would be difficult and expensive to establish and enforce Bermuda specific thresholds.

It was highlighted in general that communication between DENR/DOH and importers is key to understand different perspectives.

Training & licensing of individual applicators

Which training/licensing schemes should be utilized? (focus on one scheme or accept equivalencies?)

Several training schemes are already established in different pesticide related industries: The National Occupational Certification for Landscape Gardeners has been established in 2022 under the National Occupational Certification Act 2004. The certification is offered in collaboration with the Department of Workforce Development and Bermuda College. The certification deems that holders have achieved the standards established by the National Training Board of Bermuda. The training contains an aspect of pesticide application. The certification is based on City and Guilds level one and two horticultural program in the UK (same curriculum, has been somewhat adjusted to Bermuda). The intention is for all landscape gardeners to be certified under this Act. It entitles them to use the title “Nationally Certified” Landscape Gardener for a period of five years.³

Structural pest control companies get annual training and re-certification from pesticide companies as well as seminars provided by DOH. The training and certification by manufacturers is mandatory in order to use their products. Participants think both the training opportunities offered by manufacturers and DOH have been excellent in the past. Participants argued that current fumigation training is sufficient to allow for appropriate application and importation and that crews from all fumigation companies were participating. Most structural pesticide applicators get their certification from Florida, but at least one applicator is licensed in Georgia. From the farmers perspective, Stewart Swanson was mentioned by several farmers as having provided very useful training for farmers in Bermuda.

Arguments were discussed for and against introducing a Bermuda specific scheme compared to accepting training and licensing from other jurisdictions. There was general agreement that we should not try to reinvent the wheel, but that the local context needs to be considered and we need to make sure that training and certification is relevant for Bermuda’s environment. While there are certain specifics for different industries, most arguments apply across occupations. If using other countries’ schemes or accepting equivalencies, we need to make sure that they are offered by trusted providers and properly evaluated to fulfil our expected standards. If using another jurisdiction’s training and certification scheme, it also needs to be ensured that entry requirements can be met by prospective participants. E.g., some U.S. states have eligibility requirements such as an ID card or a certain number of years of professional experience.

In general, participants in most occupations were in favor of establishing equivalencies and accepting a variety of training courses. It was acknowledged that it may be difficult to find a single scheme that fully fits Bermuda’s situation (roof water collection, population density, type of pests, etc.). It was argued that even people who were trained and licensed abroad should be required to have an additional Bermuda training component and exam. Existing schemes offered abroad could be amended for our local needs through customizing the program or complementing the existing program with a Bermuda-specific add-on. There could be a list of approved programs and required add-ons.⁴ Golf course operators specifically are familiar with certification offered in the U.S.

A number of general aspects regarding training were discussed: An approved occupational certification standard (such as standards set by the Bermuda National Training Board) would allow to establish equivalencies from other jurisdictions. It should be clear what should be achieved with training. Ideally, a training organization should be found that aligns with the regulators’ goals to protect health and environment (this may not necessarily be the case for trainings offered by pesticide manufacturers). In general, it needs to be considered who will be able to offer the required training. Bermuda College may be able to provide support. It might also be useful to consider Bermuda’s position as a UKOT when searching for training providers. At the same time, it needs to be considered that most products are imported from the U.S.

³ NATIONAL CERTIFICATION LANDSCAPE GARDENERS | Government of Bermuda (www.gov.bm)

⁴ The permitting of refrigerant handlers under the Clean Air Act was noted as an example where training and examination can be done at Bermuda College, but there are also approved equivalencies.

When establishing training programs and requirements, we need to take into account the multinational backgrounds of pesticide applicators in Bermuda. This affects the language in which training should be offered and exams need to be taken (labels are generally in English) as well as the options that people may have to attend training courses abroad (visa restrictions). If people have been trained and licensed abroad in another language, there should be an English equivalency test or materials need to be put in applicators' language. It was noted that in some industries the working language is gravitating back to being majority English.

Participants shared a number of potential components that pesticide applicator training in different areas may contain. These include on-the-job training or practical experience as well as classroom education. Training may be required in core subjects (e.g., pesticide labelling, PPE, spill control, health and safety) in addition to the relevant specialty. It was noted that it would be beneficial to have more information about who currently uses pesticides and how many individuals would require training. There will generally be an expectation of continuing education and re-training as people tend to forget and find short cuts. How often and to what extent retraining is required should depend on the related risk.

Some concerns were raised about how training and licensing will be implemented. It was noted that it is important to set realistic goals and not put the bar too high. The process shouldn't be too cumbersome so that those wanting to enter the relevant industries are not deterred. If the expectation is that all staff needs to be trained, possibly this could be implemented in a successive manner rather than requiring everyone to be trained immediately. This would allow for companies to keep their operations going. It was highlighted that differences between industries as well as within each industry need to be understood and taken into account when implementing regulations. For example, some businesses have more staff than others, their operations may be bigger or smaller. For farmers, there may be different field sizes and locations and different types of farming relating to different pesticide usage (in-ground, hydroponics, dairy, etc.).

There was general agreement that the public needs to be better educated with regard to pesticides. Possibly, training could be offered to the public to understand more about pesticide use, including how to read labels, storage, disposal and what some of the risks and caveats are. Public awareness of the risks of using pesticides for health and environment should be increased. In addition, there were suggestions for signs to be placed in stores selling pesticides that highlight important information; further, customers may be asked to watch a video before buying pesticides in a store. There could be requirements for establishments selling pesticides to have one or more member of staff who is qualified to advise customers on pesticides. In general, it needs to be convenient for people to get information and education about pesticides.

Who should be required to be licensed?

A number of possible criteria were discussed for licensing requirements. These included:

- Anyone who is dealing with pesticides that cannot be bought off the shelf.
- Anyone who is mixing pesticides from concentrate.
- Anyone who is applying pesticides in public areas or on someone else's property.
- Anyone who is applying pesticides commercially (vs. privately) (which includes farmers spraying their own fields).

It was argued that the required training and certification should be commensurate with an applicator's responsibilities. It makes sense to implement different types of licenses for different industries, occupations and levels. Relevant types of applications should be taken into account. Occupational categories may include landscapers, golf course operators, structural pesticide applicators, pesticide retailers, farmers, government/public applicators, etc. (U.S. states have different license categories; e.g., Florida has 18 different categories). There could be different levels of certification within each occupational category. E.g., depending on responsibilities: mixing, measuring, calibrating, applying, ...; e.g., depending on chemicals used, application methods utilized, application area, ...; e.g., depending on supervisory responsibilities, ...

There was extensive discussion around the question of whether one licensed person per establishment would be enough or whether every single applicator should be licensed. Arguments for both sides were presented. There was general agreement with the idea that at least one person should be required to be licensed in every establishment that uses pesticides. Some participants in different industries argued that everyone who applies pesticides professionally/commercially should be licensed. For example, some farmers argued that anyone who wishes to be in the business of local food production should be broadly educated on this topic and licensed to apply pesticides as a matter of food safety. It was noted that certification would send a positive message to the public about the licensed professionals, in particular for food producers. It was considered reasonable that a licensed operator should be attending the site of structural pesticide fumigation in person.

Other participants across industries argued that it would be unrealistic to require every staff member handling pesticides to be licensed and that it would be sufficient for management, supervisors or a subset of applicators to be certified. Management, supervisors and/or certified applicators would be accountable for the correct handling (dilution, mixing, calibration, etc.) and application (PPE, etc.) of pesticides that they are supervising.⁵ Managers may be responsible for record keeping, amounts used, etc., as good record keeping allows for checks and balances. There were discussions if it would be a requirement for a certified person to be on site every time a pesticide is handled or applied. This is already the case for fumigations where a certified person has to be on site.⁶ A landscaping company explained that certified persons go out with crews daily to assess the situation, targets, risks and make plans with the applicators; applicators do the actual application while the supervisor keeps records.

It needs to be considered that one certified person may not be sufficient for effective supervision in larger operations with many employees or where workers are applying pesticides in spread out locations. There could be a specified ratio of how many uncertified staff members there can be for every licensed person. The question was raised how far down the company hierarchy training and certification requirements should go. It was noted that there could be a requirement to register unlicensed applicators that are working under the supervision of a licensed applicator. It was also mentioned that some companies are already doing inhouse training to ensure that everyone is knowledgeable about pesticide application. It was acknowledged that professional companies in all industries follow their own appropriate protocols and procedures, but there may be untrained applicators in some contexts who may not apply pesticides properly which is why standards are needed for everyone.

When implementing a licensing requirement, regulators need to make sure that this is realistic and doable for operators and not create unnecessary hardship. For example, it may be difficult for every single employee to find the time to study and get licensed. Some applicators may not be able to do the math and calibration, but could apply when properly supervised. Participants agreed that it should be doable for most operations to have at least one person in their operation certified and possibly have a second person to ensure there is a backup. There were some concerns that some older farmers might not be able to comply. If a general licensing requirement for everyone is to be implemented, it would be reasonable to phase it in over a few years to give operators the chance to comply.

Several participants noted that anyone selling any pesticides (including retail outlets selling general use pesticides) should have some training and be licensed in order to be able to provide education to the public on the risks of pesticides and the importance of appropriate use. Sellers should be required to offer instruction and advice to customers buying pesticides. There was broad agreement that more restrictions for pesticides sales in retail settings were desirable. Some participants argued that no pesticides should be

5 U.S. golf courses were mentioned as an example where typically a few people within the management team have applicator licenses, but who don't have to be the actual applicators.

6 An example from Florida was mentioned where new regulation defines the required training and regulation of the "second person" on site (Fumigation ID Card).

available at retail (i.e., hardware stores, supermarkets, nurseries, etc.). Unlicensed pesticide users should either buy pesticides from a central regulated depot where they can receive proper advice on pesticides use or they can seek help from professional licensed providers.

Participants agreed that restricted use items should not be available for sale to the general public in a retail setting. Currently, only the Government Marketing Center sells restricted use pesticides to professional applicators. The option was mentioned that retail outlets could sell restricted use pesticides to licensed applicators, but the idea was not generally supported. It was suggested that members of the public could be asked to show a valid ID to purchase a pesticide product.⁷ Purchasers could be asked about intended use which could give regulators data on pesticide use by the public. Some outlets selling pesticides at retail are training their staff to be able to advise customers about the pesticide products they sell, but, currently, that is their own decision. It was noted that retail establishments cannot be held responsible for customers using pesticides properly; even if customers receive advice when purchasing pesticides, they may not heed it or not read the label. Pesticide sellers should be certified to be able to deal with potential accidents with the products they sell (for example, a pesticide falling off the shelf and spilling).

Other considerations for training and licensing

Re-licensing is necessary to ensure that people remember and stay up to date with developments. The extent and appropriate time interval should be based on risk. Possibly, re-licensing does not require full re-training, but should at least include a refresher.⁸ Re-licensing could require different components, including continued education, a certain number of hours practical experience, etc.

The challenge of enforcement was highlighted by several participants. U.S. golf courses were mentioned as an example of what enforcement could look like. State regulators routinely check whether someone on the team has the required pesticide certification as well as whether operations, record keeping, equipment maintenance/storage, etc. are in order. It was noted that enforcement is always challenged by a lack of resources, but regulations are only relevant with enforcement. Some concern was raised about enforcing record keeping for pesticide applications for farmers due to specific conditions in Bermuda: U.S. farms may grow one crop on large area whereas one farm in Bermuda may grow dozens of different vegetables and fruit. Different items require different applications at different times and different stages. Growing cycles and pesticide needs between items are overlapping, requiring constant switching between products. Operations in Bermuda are very detail oriented and having to record every detail would severely increase workload. On the other hand, it was argued that some record keeping is needed and should be part of the regulations. A culture change may be necessary as record keeping is very important for accountability and can be facilitated by smartphones and apps. It was noted that, if importation was strictly monitored and licensing up to date, then there could be some trust that farmers or other professionals know what they are doing.

Participants cautioned to make sure that not too much red tape was added to inhibit the industry. Participants agreed that it was not unreasonable to ask professionals to be licensed in the products they are using and to ensure that new entrants into pesticides using industries are properly trained and certified. However, they argued that the requirements should not be prohibitive for new people to get started in an industry, in particular, as some industries (farming) are struggling to recruit the next generation. The question of licensing fees came up and it was noted that fees and other licensing requirements needed to be obtainable for the relevant occupations. It was also noted that new regulations for pesticide applicators needed to be proportionate given that toxic chemicals can be bought at nurseries, supermarkets and hardware stores and applied by the general public without any further regulation.

7 Identification is required, for instance, when purchasing a machete.

8 Examples for re-licensing in other areas: power engineers at Tynes Bay (every year), first aid (every three years), Certified Pesticide Applicator license in Florida (every four years)

It was highlighted that the implications of licensing requirements needed to be considered: What would be the implications of someone applying pesticides without adequate license? Would people be able to import pesticides without a license? What about private users?

It was further requested that the fumigation license from DOH should be reformed to comply with U.S. requirements. A general suggestion was to consider posting licenses publicly (similar to licenses for refrigerant handlers). Participants noted a need to consider who would be responsible for issuing and renewing licenses.

Notes

- This report summarizes statements of participants during the consultation process. Not all topics covered in this report were equally discussed in all focus groups and not all opinions were shared by all participants. Statements made by participants and examples provided are recorded as recounted during the meetings without additional verification.
- During the focus groups as well as in additional submissions, stakeholders provided feedback on other areas that were not directly related to the topics that this report focuses on. These comments have been recorded, but have not been included in this report to ensure a focus on the areas for which regulations will be drafted in the next step (such additional topics included, but were not limited to the issue of feral chickens and public access to rodenticides).
- Some participants shared regulations from other jurisdictions, including Florida and Georgia. These have not been included in this report, but will be referred to in the next stages of developing regulations.

Recommendations

Importation

1. Define and publish a list of general use pesticides that can be imported without having to apply for permission to import. Make sure that parameters for including pesticides on this list are clearly defined.
2. Define lists of restricted use pesticides that are pre-approved for certain occupational groups dependent on licensing requirements.
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Training & licensing

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10. Clearly define requirements for who needs to be licensed and how many people need to be licensed in each establishment. Establish guidelines for re-licensing.
11. Better educate the public about pesticides.

Next steps

- Develop regulations for importation as well as training & licensing.
- Continued consultation with stakeholders.