



### **Supplemental Text to the 2017-2021 Pesticide Strategy**

With this supplemental text to the 2017-2021 Pesticide Strategy ('the Strategy'), the Government (The Liberal Party, Liberal Alliance, and the Conservative Party), the Danish People's Party, the Danish Social Democrats, the Social Liberal Party and the Socialist People's Party hereby agree on:

- Reducing the risk of leaching of pesticides in drinking water well vicinity protection zones,
- Adhering to the recommendations of the Danish Water Panel regarding screening for several substances within the groundwater monitoring program,
- Strengthening the effort to counteract pesticide resistance,
- Prohibiting the sale of concentrated pesticides for non-commercial use.

The parties to the Strategy further agree on retaining the existing goals for reducing the pesticide load and on retaining the pesticide tax until the end of 2020.

### **Supplement to Item 1 in the 2017-2021 Pesticide Strategy**

#### **Retention of Goals for Reducing the Pesticide Load and Retention of the Pesticide Tax**

The impact of the pesticide tax has been evaluated. The evaluation shows that the tax has indeed brought about the anticipated substitutions and that the goal of reducing the pesticide load by 40% corresponding to a Pesticide Load Indicator of 1.96 in terms of sales has been reached, but that a similar reduction in consumption measurements according to the spray records submitted by farmers has not been achieved. The difference between sales and consumption figures is in part explained by a practice of stockpiling resulting from the 2013 change in the pesticide tax. Due to this discrepancy, and due to the expectation that the number of pesticides will be reduced by upcoming reassessments of several active substances within the European Union and by technological developments, the parties to the Strategy agree to undertake a new assessment of the goals and of the pesticide tax in 2020 and to discuss the potential need for goal and tax revisions based on the results. The parties further intend to assess new technologies such as closed systems with respect to the opportunity to promote them and then adjust the pesticide tax.

### **Replacement of Item 5 in the 2017-2021 Pesticide Strategy**

#### **Reduction of the Risk of Leaching of Pesticides in Well Vicinity Protection Zones**

The parties to the Strategy agree on the need to reduce the risk of groundwater contamination from industrial use of pesticides in well vicinity protection zones, and agree that farmers affected by this measure be reimbursed or compensated for their losses via the municipal water rate. Phase 1 would provide a reimbursement, and phase 2 would provide compensation.

In phase 1, the reimbursement may occur in the form of e.g. a one time reimbursement and an associated land registration with an easement restricting the owner's rights within the well vicinity protection zone or the owner's purchasing rights respecting the areas in question. The full market value reimbursement will be made on the basis of an assessment of previous industrial use of the area, the market listing price, and the extent of the restrictions imposed on the property. The intent is that the farmer avoids any losses as a result of the restrictions.

specific easement may be so extensive that it constitutes expropriation. In phase 2, EU subsidy regulations may indicate the need for ongoing annual compensation. The parties to the Strategy thus agree on an action plan for enhanced drinking water protection in the well vicinity protection zones.

#### Phase 1: Requirements for Municipalities to Assess all Drinking Water Well Vicinity Protection Zones in Agricultural Areas

During phase 1, municipalities are required – up until the end of 2022 – to review all well vicinity protection zones in agricultural areas and well vicinity protection zones in other areas where pesticides are used for commercial purposes. The intent of the review is to assess the need for additional initiatives such as moving the well or entering into agreements for pesticide free operation, cessation of growing operations, or an outright purchase of the land. The review will in addition examine whether existing container filling/rinsing sites within a well vicinity protection zone must be relocated. The municipalities will be encouraged to initiate the relevant remedial action as soon as these agreements are reached.

Existing regulations provide for issuing orders or prohibitions to avoid contamination of groundwater or for restricting the land owner's activities with a view to protecting drinking water from contamination with substances including pesticides. In addition, voluntary agreements may be made. For example, agreements might be made to transition to pesticide free and/or organic growing methods, letting crop fields lie fallow, undertaking natural environment projects, or initiating afforestation in the areas in question. Municipalities may arrange with the Organic Denmark organization to perform a verification of a transition to organic growing – especially in areas where the municipalities are responsible for protecting the drinking water resources on behalf of residents. The current funding framework will be increased by DKK 1 million in 2019.

For the parties to the Strategy, it is desirable that the municipalities examine, to the fullest extent, the opportunities for setting up voluntary agreements with the land owners such that locally based solutions may be achieved collaboratively by the municipality, the waterworks, and the land owner.

Current guidelines will be enhanced to support the municipalities' review of the well vicinity protection zones in agricultural areas. This will entail a clarification of the requirement for protection within the well vicinity protection zone and suggested rates for reimbursements, including examples of market value calculations. In addition, the guidelines will include a detailed description of the risk factors associated with the use of pesticides within well vicinity protection zones.

The parties to the Strategy will be provided an annual status report on the implementation to enable them to assess the initiative. The parties will assess whether the efforts on the part of municipalities are sufficient or whether Phase 2 should be launched.

In addition, a monitoring committee will be established, consisting of industry representatives, trade associations, and the National Association of Local Authorities in Denmark. Its remit is to facilitate coordination between agricultural entities, municipalities, and waterworks. Relevant ministries will be involved as well. The monitoring committee is tasked with proposing solutions within the current regulations in the event consumers experience price increases in excess of anticipated increases. In this context, it may be appropriate to consider merging water utilities and establishing inter-organizational collaboration.

In 2022, the municipal effort will be evaluated. The Ministry of Environment and Food of Denmark will assess how many well vicinity protection zones have been reviewed and what initiatives for protection have been launched. In the case of well vicinity protection zones where the municipalities deemed further effort unnecessary, the Ministry will undertake an assessment whether the efforts undertaken so far adhere to the enhanced guidelines for well vicinity protection zones (including whether a well vicinity protection zone continues to be at risk for groundwater contamination). Should the municipalities have failed to reach the goals of shielding well vicinity protection zones against contamination, the parties to the Strategy agree to issue an overall prohibition against spraying in the affected well vicinity protection zones.

### Phase 2: Overall Prohibition Against Spraying in Well Vicinity Protection Zones

An overall prohibition against spraying with pesticides in well vicinity protection zones will entail a compensation scheme to ensure that all losses will be compensated regardless of EU subsidy regulations.

The existing partnership between the Ministry of Environment and Food of Denmark and the National Association of Local Authorities in Denmark will be maintained. This partnership supports the annual determination of the status of municipal efforts to protect well vicinity protection zones.

### **A New Initiative Related to the 2017-2021 Pesticide Strategy**

#### **Prohibition Against Sales of Concentrated Substances to Consumers**

The parties to the Strategy agree that from now on, consumers may purchase and use only ready-to-use or low-risk pesticides such as pelargonic acid. The prohibition comes into force on July 1, 2020. As of this date, purveyors of pesticides must verify that all purchasers of pesticides for commercial use have an authorization for purchase. Thus, it will be possible as of this date to distinguish authorized from non-authorized users.

### **Supplement to Item 3 in the 2017-2021 Pesticide Strategy**

#### **Screening of Additional Substances in the Groundwater Monitoring Program**

The parties to the Strategy agree to the recommendations of the Water Panel respecting screening for a considerably larger number of pesticides in the Groundwater Monitoring Program. Therefore, a comprehensive program of groundwater screening will be launched in 2019, and funding is set aside for developing relevant analytical methods. In addition, funding is set aside for subsequent years for monitoring any substances found to exceed the maximum values. For each year in the period 2019-2022, DKK 9 million has been provided for in the national budget. Should the monitoring activity identify substances exceeding the maximum values, such substances will be reassessed with a view to determining whether use restrictions should be imposed, whether a ban should be issued, or whether the substances should be reassessed within the Pesticide Leaching Assessment Program. The parties to the Strategy will be informed about such determinations.

Per the recommendations of the Water Panel, the parties to the Strategy furthermore desire an enhancement to the procedure for selecting substances for the Pesticide Leaching Assessment Program and for waterworks drilling controls. There is a need for a more thorough and systematic collection of new knowledge about substances presenting a risk of leaching into groundwater. Sources of such knowledge may include results from the Pesticide Leaching Assessment Program, spot checks of water sources, new discoveries of pesticides in drinking water wells in Denmark, or monitoring of groundwater in other EU countries.

There is a need to include an external forum in the dialogue respecting the Ministry's proposed new substances for the groundwater monitoring and the pesticide inventory for drilling controls. Therefore, the Pesticide Working Group within the Water Panel is set up as a permanent forum tasked with providing input to prioritization of the resources for screening (including the prioritization of non-target screenings when these are commercially available). The Working Group will be supplemented by participation from relevant university researchers.

#### *The Water Panel Recommendations:*

- *Turn the Working Group into a permanent council within the Water Panel. Its remit will be the ongoing work to update the inventory of pesticides and their degradation products that must be monitored by water utilities in raw water and drinking water (the pesticide inventory) and the list of substances included in groundwater monitoring.*
- *Update the procedure for selecting substances for the Danish National Groundwater Monitoring Program and the pesticide inventory to include the Working Group and Water Panel in the annual status update.*
- *In future, screen for a significantly larger number of pesticides during the groundwater monitoring process. The groundwater monitoring process needs to be expanded in the short term. On the basis of the results of*

*regional analyses, the Environmental Protection Agency has initiated a more detailed analysis in order to identify substances that should be screened for in the groundwater monitoring process. A final assessment of the need for further pesticide analyses in the groundwater monitoring process will be done once the results of this analysis (scheduled for the first quarter of 2019) are available. As soon as possible after the analytical work and prior to the end of the second quarter of 2019, a screening within the National Groundwater Monitoring Program is to be initiated; however the precise approach depends on the capabilities of the laboratories and on the budget for groundwater monitoring.*

- *Monitoring of surface water may supplement other types of monitoring. The Environmental Protection Agency will assess whether a supplemental monitoring of surface water should be undertaken. Such monitoring is relevant with respect to biocide runoff to surface water.*
- *Develop additional guidelines for municipalities and waterworks with respect to the response in case of discovery of pesticides and to the local adjustments required for drilling controls. The Environmental Protection Agency will call upon the Working Group with respect to defining the requirements for guidelines, hereunder the determination of the most appropriate locus of control for future work on guidelines.*
- *Give a permanent seat on the Water Panel to the Danish Regions organization as that organization is currently without representation.*

## **Supplement to Item 2 in the 2017-2021 Pesticide Strategy**

### **Enhanced Effort to Counteract Resistance**

The parties to the Strategy agree to implement the resistance action plan with the proposed initiatives within the next 4 years; to strengthen the overall effort to develop Integrated Pest Management based on the recommendations from the Integrated Pest Management Task Force; and to increase the funding so as to strengthen the partnership for precision technology in spraying. The effort is supported by DKK 5 million per year for 3 years in the 2020-2022 period, adding up to a total of DKK 21.9 million for the next 4 years.

In order to prevent resistance and ensure farmer compliance with Integrated Pest Management principles, there will be a requirement that a point based schedule must be filled out by each farm to enable monitoring of compliance. A baseline analysis will be performed with respect to crop rotation at various types of farming operations so as to develop a crop rotation index. The parties to the Strategy will discuss, on the basis of this baseline analysis, what requirements could potentially be introduced in areas where a change in crop rotation practices is required. Administrative work loads associated with such mandated requirements will be compensated for by a corresponding streamlining of paperwork prior to the implementation in 2020.