

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

H.678

Introduced by Representatives Smith of New Haven, Bock of Chester, Connor
of Fairfield, Graham of Williamstown, Higley of Lowell,
Hooper of Randolph, Lawrence of Lyndon, Norris of Shoreham,
and Van Wyck of Ferrisburgh

Referred to Committee on

Date:

Subject: Agriculture; water quality; subsurface tile drainage

Statement of purpose of bill as introduced: This bill would require the
Secretary of Agriculture, Food and Markets on or before December 1, 2021 to
submit to the General Assembly draft rules for the regulation of agricultural
subsurface tile drainage. The bill would also delay from January 15, 2018 until
July 1, 2022 the due date for rules establishing requirements for agricultural
subsurface drainage.

An act relating to agricultural subsurface tile drainage

1 It is hereby enacted by the General Assembly of the State of Vermont:

2 Sec. 1. FINDINGS

3 The General Assembly finds that:

4 (1) Subsurface tile drainage reduces saturated soil conditions in the crop
5 rooting zone, which increases crop rooting depth, and increases total crop
6 phosphorus uptake from soils.

7 (2) Subsurface tile drainage increases crop yields of corn, soybeans,
8 cereal grains, hay, and pasture while using the same fertilizer and manure
9 inputs improving economic viability of Vermont farms.

10 (3) Subsurface tile drainage also creates better crop growing conditions,
11 improved soil structure and soil health, enhanced trafficability with less soil
12 compaction, and more timely planting and harvest.

13 (4) Subsurface tile drainage reduces soil erosion losses and compaction
14 of field soils while improving opportunity for manure and cover crop
15 management.

16 (5) Subsurface tile drainage reduces risk from crop failure due to
17 extreme weather conditions, including excessive rainfall and seasonal drought
18 conditions attributed to climate change.

19 (6) Despite the significant phosphorus concentrations sometimes
20 observed in tile drainage water, the phosphorus concentrations in tile drainage

1 water are usually much lower than the concentrations of phosphorus in
2 overland flow from the same site or in adjacent receiving surface waters.

3 (7) Research indicates that in some cases the phosphorus load attributed
4 to tile drainage may be less than that attributed to surface runoff.

5 (8) Phosphorus concentrations measured in tile drainage vary
6 significantly, reportedly due to soil characteristics, phosphorus levels in soils,
7 agricultural management and cropping systems, weather, and other factors.

8 (9) Research literature indicates that manure and fertilizer can be
9 applied to cropland without major increases in phosphorus loss in tile drainage,
10 but soil conditions, application rate, and timing are important factors
11 influencing potential losses.

12 (10) No-till practices increase dissolved phosphorus loss compared to
13 conventional tillage as preferential flow paths including cracks and macropores
14 in soil develop over time.

15 (11) No-till crop systems in Vermont are not similar to Midwestern corn
16 and soybean no-till systems. Cover crops and manure injection are common
17 practices used in Vermont to recycle nutrients and disturb soil surface to
18 reduce preferential flow paths to subsurface drain tile.

19 (12) The revised P-index for Vermont for 2017 includes subsurface tile
20 drainage as a factor.

1 Sec. 2. 6 V.S.A. § 4810a is amended to read:

2 § 4810a. REQUIRED AGRICULTURAL PRACTICES; REVISION

3 * * *

4 (b) On or before December 1, 2021, and prior to prefiling of a rule under
5 3 V.S.A. § 837, the Secretary of Agriculture, Food and Markets shall submit to
6 the Senate Committee on Agriculture and the House Committee on Agriculture
7 and Forestry draft rules amending the required agricultural practices, in order
8 to include requirements for reducing nutrient contribution to waters of the State
9 from subsurface tile drainage. On or before ~~January 15, 2018~~ July 1, 2022, the
10 Secretary of Agriculture, Food and Markets shall ~~amend by rule~~ initiate
11 rulemaking to amend the required agricultural practices in order to include
12 requirements for reducing nutrient contribution to waters of the State from
13 subsurface tile drainage. Upon adoption of requirements for subsurface tile
14 drainage, the Secretary may require an existing subsurface tile drain to comply
15 with the requirements of the RAPs for subsurface tile drainage upon a
16 determination that compliance is necessary to reduce adverse impacts to water
17 quality from the subsurface tile drain.

18 Sec. 3. EFFECTIVE DATE

19 This act shall take effect on passage.