Top Five Myths on the Birds and Bees Protection Act (A7429/S699B) and Neonic-Treated Seeds

With U.S. beekeepers experiencing the second worst yearly losses on record, and declines of other bees, butterflies, and insects reaching levels some now call “insect apocalypse,” there has never been a more urgent need to address a key leading cause — the widespread use of neurotoxic neonicotinoid pesticides, or “neonics.” A recent Cornell University review of over 1,100 peer-reviewed studies (“Cornell Report”) reveals that the neonic uses that pose the greatest threats to New York’s bees also provide little-to-no benefits to users or are easily replaced with safer alternatives. The Birds and Bees Protection Act (A7429-Englebright/S699B-Hoylman) prohibits these needless uses. Recently, a number of myths have arisen regarding the bill’s provisions on neonic-treated corn, soybean, and wheat seeds. Here are the top five:

Myth 1: Neonic-treated corn, soybean, and wheat seeds are a “precision technology” that has reduced insecticide use — the bill’s ban on the purchase or sale of these seeds will result in greater use of more toxic pesticides.
**Truth:** Insecticide use today is more ecologically toxic and widespread due to neonics, which have made U.S. agriculture up to 48-times more harmful to insect life since their introduction in the mid-1990s and dramatically increased insecticide-treated crop land. Before neonics, only 35% of conventional corn acres and 5% of soybean acres were treated with an insecticide during the entire growing season, but today, neonic-treated seed use alone covers up to 100% and 75% of acres, respectively. In the European Union and Canada — where neonic-treated seeds have been banned or restricted — newer, less-toxic chemistries like diamides have been used, and there is some evidence that total insecticide use has decreased, at least for some crops. Seed treatments are also inefficient — only 2-5% is taken up by the target crop, leaving the other 95+% to persist in soil for years, where it is carried by rain to contaminate new soil, plants, and water.

Myth 2: The loss of neonic-treated corn, soybean, and wheat seeds would lead to food insecurity.
**Truth:** The Cornell Report shows that these neonic seed treatments provide “no overall net income benefit” to farmers (p. 236). That lack of benefit has clearly been demonstrated in the European Union, where the use of neonic-treated corn and soybean seeds have been prohibited since 2013, yet crop production is either the same or increased (see here and here). To the contrary, neonic-treated seeds themselves threaten food security. As backed up by the Cornell Report, neonic treated seeds are a leading cause of pollinator losses, and recent research reveals top New York crops like apples and cherries are “pollinator limited” across the nation — meaning a lack of pollinators is already hampering production.

Myth 3: Neonic-treatments on corn, soybean, and wheat seeds are “just like health insurance.”
**Truth:** Needless use of neonic-treated seeds threatens pollinator and bird populations, extensively contaminates New York water, and may be harming human health too — leading some in the scientific community to liken their impacts to a second Silent Spring. Most farmers already have crop insurance — and coverage levels can be adjusted to account for risk. The Cornell Report shows that neonic seed treatments rarely benefit crop yields in New York — and even when they do, there’s no net economic benefit when the additional costs of having the neonics on the seed are factored in. The price of this “over-insurance” — unlike with actual insurance — is falling bee populations, polluted water, and ecosystem-wide harm.
Myth 4: The harmful effects of using neonic-treated corn, soybean, and wheat seeds can be avoided with “best management practices.”

Truth: Neonics are extremely toxic to bees, persist in soils for years, and move easily through the environment, contaminating new soil, water, and plant life (see here, p. 3). For these reasons, best management practices on the time, place, and manner of neonic use are (and have been) ineffective at preventing pollinator losses and other harms—particularly with neonic-treated seeds, where the neonics are placed directly into soils. Even if best management practices could be devised, there’s little guarantee they would be used. Indeed, research shows that many farmers are not even aware what pesticide coatings appear on their seeds.

Myth 5: The bill would require individual farmers to each go through a notice and comment period to plant neonic-treated seed under the bill’s exemption provisions.

Truth: The bill allows DEC, in consultation with the Department of Agriculture and Markets, to suspend the ban on neonic-treated corn, soybean, and wheat seeds for a particular type of seed if that seed is not “commercially available” or if its purchase would impose “unreasonable costs” on farmers. This process would be led by the agencies, include notice and comment, and affect sale or purchase of that seed anywhere in the state. Individual farmers could, of course, participate in the notice and comment period, but would not be required to do so in order to take advantage of the ultimate DEC decision.