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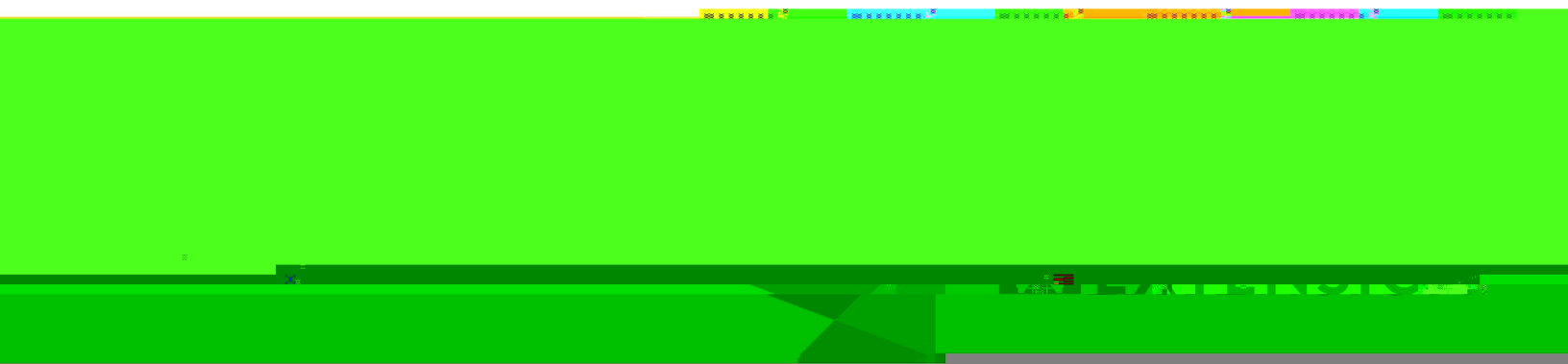
VT farmers are developing new business models to meet the increasing demands for local agricultural products including addi ton of 5 four mills, 8 malt houses, 15 hemp processors, 3 tor tlleria, 40 dis tlleries, 120 microbrewer-ies, hundreds of ar tsan bakeries, and dozens of businesses using locally grown corn, cereal grains, beans, oilseeds, hemp, and hops. The need for locally grown organic and non-GMO grains has con tnued to increase and although New England boasts vibrant organic dairy and vegetable sectors, it lags behind other regions for local grain produc-ton. Organic grain (corn, cereal, oilseed, legumes) acreage has increased in New England from 800 in 2008 to 6,500 acres in 2016. The number of VT farms growing dry beans and soybeans more than doubled between 2012 and 2016. Pest management is a serious obstacle in corn, cereal grains, dry beans, and oilseed crops produc ton. In the last five years, organic farmers throughout the northeast have experienced reduced yields and quality due to intense disease and weed pressure related to increased rain events and erra tc climate fluctua tons. In 2018, farm-ers reported 30% yield and quality loss due to cereal foliar and head diseases. In 2019, grain samples submi ted to the UVM Cereal Grain tes tng lab indicated 28% of samples are above the 1% DON (vomitoxin) threshold for hu-man consump ton. IPM strategies to manage Fusarium head blight as well as other grain diseases in organic sys-tems is cri tcal. We con tnue to fnd high incidence of loose smut in cereal grain fields as a result of infested seed lots. Tes tng farmers seed lots with new rapid PCR tests will be essen tal to keep this disease from further damag-ing organic grain produc ton. In a 2018 survey of organic grain growers in the northeast, 88% said they were inter-ested in receiving more educa ton about weed, disease insect ID and management to grow a successful crop. Man-aging diseases and pests is a challenge for soybean and dry bean growers. Seedborne pathogens provide a source of destruc tve diseases and limi tng these pathogens before sowing can reduce common root rots and foliar, pod and seed diseases. Soybeans for local tempeh and soymilk markets must be free of staining and in a 2018 grain survey 87% of farmers reported weeds and disease o fen kept them from mee tng these high value markets. All farmers reported being concerned about emerging eport ῡ



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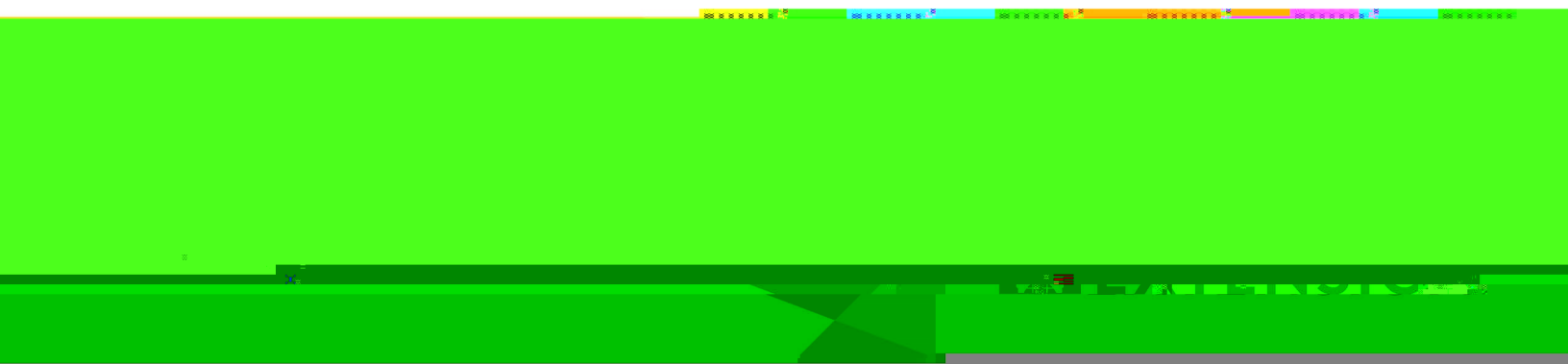
High tunnel specialty crop production is often a critical component of small diversified farms. There are at least 700 vegetable high tunnels in Vermont, which at an average size of x grow 1.6 million f2 of crops: foricul-



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The UVM Plant Diagnostc Clinic (PDC) addresses several regional 2018 NEERA-1604 extension priorites in additon to priorites set at a northeast Small Fruit and Vegetable working group meeetng in 2018 (htps://www.northeastpm.org/neipm/assets/File/Priorites/Priorites-VegetableIPMWG-2018.pdf) where 67% of the atendees rated pest/disease ID and management as the top priority in vegetable crop extension educaton and pest management educaton in high tunnels as the second most important priority. The PDC serves as the overarching resource providing diagnostc support for all the stakeholders and Priority areas in the VT EIP. Vermont stakeholders need access to tmely, accurate and cost-efectve diagnostcs to make informed management decisions based on IPM strategies. The most recent PDC survey results showed 91% of stakeholders who submited a pest, weed or disease sample used IPM strategies to manage their pest as a result of the diagnosis. Commercial growers (84%) indicated they reduced pestcides due to the informaton received from the PDC and saved an average of $~1,400 as a result of decreased pestcide use. New growers unfamiliar with pests and IPM are steadily increasing, especially in industrial hemp and other specialty crops. These growers ofen have limited backgrounds in agriculture and it is essental to have an impartal facility to identfy pests in a wide range of crops and provide IPM informaton that minimizes environmental, health and economic risks. The PDC samples ofen drive the IPM topics presented in newsleters, on TV and in workshops throughout the northeast. The MG Helpline, home gardeners and consumers represent expanding audiences requiring diagnostc and IPM informaton on current and emerging problems to avoid unnecessary pestcide use. The PDC provides diagnostc backup for the hundreds of calls and samples/photos the Helpline volunteers receive each season. The PDC represents Vermont s interests in the Natonal Plant Diagnostc Network (NPDN) and receives no operatng funding other NPDN funds. All PDC samples are uploaded to the NPDN Natonal Repository to track emerging pest problems..

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CULTIVATING HEALTHY COMMUNITIES

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