FARMWORKER HOUSING NEEDS ASSESSMENT

Prepared for the VERMONT HOUSING & CONSERVATION BOARD
Montpelier VT

April 2021
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EXECUTIVE SUMMARY

The Vermont Housing & Conservation Board (VHCB) engaged consultants John Ryan and Jennifer Lenz to assess the needs, challenges and opportunities for improving and expanding the stock of housing available in Vermont for hired farmworkers as well as for housing to serve the principals of those farms and their families. This work combines two critical components of VHCB’s mission: the provision of safe, decent and affordable housing for those who live in the state, and the sustainability of Vermont’s agricultural enterprises. The primary focus of this study is on-farm employee housing.

Purpose of Study

The purpose of this research is to provide data and perspectives; to articulate issues, challenges and opportunities; to estimate the scale of need and the costs to address those needs; and to suggest approaches and make process recommendations for a more focused effort to improve the stock of housing that supports agriculture in Vermont.

Context

Farmworker housing in Vermont is one facet of agriculture nested within the complex and changing interplay of farm policy, immigration policy, business practices, cultural and behavioral expectations, and sometimes harsh economic realities. In the course of this study, the consultants spoke with no one who did not support the goals of improving both the quality of housing for farmworkers and improving the viability of farming in Vermont. Key to making progress in addressing the condition and availability of safe, decent and affordable farmworker housing is: 1) finding approaches where these two goals are not in conflict with each other; and 2) focusing on that which is within the stakeholders’ ability to influence when so much is not within their control.

Nature and Scale of Farmworker Housing Need

» According to the 2017 US Census of Agricultural, there are roughly 6,800 farms in Vermont and about 21,000 farmworkers. Of these farmworkers, 8,500 are hired workers; the remaining 12,500 represent farm owners/operators and their working family members. The total number of hired farmworkers is not growing.

» The Vermont Department of Taxes’ Current Use Registry for 2019 lists 345 farms with 559 separate employee housing dwellings. This registry captures most of the employee housing dwellings on farms in the state. Of these, 70% are in Franklin, Addison, or Orleans County.

» Roughly 2,000 hired farmworkers in Vermont live in housing provided on or immediately adjacent to the farm. The majority of on-farm housing is connected to dairy farms. The next largest segment represents the roughly 50 orchardists, field crop farmers, and meat processors who employ 650 or so seasonal migrant workers through the federal H-2A Program.

» Another 6,500 hired farmworkers live independently from their employer.
Well over half of hired farmworkers who live on-farm are migrant workers. Aside from those contracted through the H-2A program to work seasonally, the overwhelming number of migrant workers lack the required authorizations to work in the US.

Dairy farms represent just 10% of the farms in the state, but they generate roughly 70% of the state’s agricultural revenue, employ nearly half of all hired farmworkers, house a substantial majority of those farmworkers who live on farm, and employ nearly all of the migrant workers who are not fully authorized to work in the US.

Distinct concentrations of hired farm workers, migrant workers, and on-farm worker housing exist in Addison and Franklin Counties, and lesser but still significant numbers in Orleans and Chittenden Counties.

Roughly 75-80% of hired farmworkers living on-farm are single persons, most of them men. Their housing needs and priorities are different from the remaining on-farm workers who have family members living with them.

Key Challenges

There are many challenges to improving the quality and quantity of farmworker housing in the state right now. Key among them are:

- The uncertainty and economic challenges of farming generally, and especially those facing dairy farmers, create disincentives to borrowing for housing capital improvements and constrain farmers’ capacity to add any new costs to their operations.

- Given these challenges, many farmers feel besieged by economic, food safety, water quality, and land use regulations that limit their ability to exercise control over their business. Discussion of improving farmworker housing may be experienced as the state’s extension of control over still another aspect of their farm (i.e. their employees), and as such, efforts to change the current situation may be looked at with skepticism by some within this key stakeholder group.

- The farm operator’s experience of lack of agency and control is also the experience of many of the workers they hire. A substantial majority of hired farmworkers living in on-farm housing, and many of those who experience the greatest housing challenges, are not fully authorized to work in the United States. This not only forecloses the option of accessing federal funds to serve their housing needs, it impacts the ability of these workers to report inadequate housing, or to settle long enough at one farm to influence even marginal investments. Uncertainty over immigration policy enforcement also impacts a farm’s ability to make long-term capital improvements based on the assured continuation of this labor pool.

- Low wages for farm work generally impacts the ability of all farmworkers, both domestic and migrant, to secure adequate housing. In this respect, farmworker housing is part of a larger affordable housing challenge that all low-wage workers in Vermont, and especially those living
in rural Vermont, face. Agriculture is unique in being one of the last industries where an expectation to provide housing to employees still exists. This expectation is directly related to the low wages many farmworkers earn and the exemption from minimum wage and overtime work laws that most farms continue to have.

» Most of the farms in Vermont that house farm workers operate on conserved land or under “current use” restrictions. Permitting to add farmworker housing units or even to add to the footprint of existing housing can represent a difficult, time-consuming, and at times, expensive undertaking in and of itself. Moreover, farm covenants, especially, the Option to Purchase at Agricultural Value (OPAV) may limit the farmer’s ability to get a return on their capital investment for on-farm employee housing when the ownership of the farm transfers. Other building requirements, most noticeably septic requirements, also impact a farm’s ability to expand its supply of housing.

» A lack of reliable information about the condition of farmworker housing; the absence of a consensus on what is an acceptable standard for this housing; the variance of local enforcement of health and safety codes; and the uneasy reliance on workers without full authorization to be here, all contribute to making the issue of farmworker housing more opaque and subjective than is helpful when improved quality is the goal.

» The shadow existence of migrant workers who are not here legally feeds the racial stereotyping and bias, cultural and language differences, xenophobia, and double standards around housing for domestic and Latinx workers that represents the uncomfortable and challenging reality that is not the uncommon experience of those living in this housing.

Nature of Housing Problems that Need Addressing

For on-farm housing, the following represent the key physical problems that need addressing:

» Noise as a function of overcrowding: perhaps the most impactful need to address for single workers is insufficient privacy, space separation, and/or noise buffering to allow for quiet sleeping conditions. This is especially a concern for dairy workers where the need for round the clock operations result in some workers having to sleep while others are working or eating throughout the day or night.

» Cleanliness: the most common and noticeable challenge which shows itself especially (though not exclusively) in the housing for single workers, is lack of regular cleaning, inadequate maintenance, insufficient trash removal facilities, and/or limited food storage that promote a healthy living environment. This condition may require providing the tools, resources and support that allow for a clean environment; setting and enforcing consistent expectations; providing prompt maintenance where it is the owner’s responsibility to do so; and generally supporting a culture of greater cleanliness. Education is a central component of addressing this need.
Safety: the most essential inadequate housing condition to address is safety, which includes the lack of smoke and carbon monoxide detectors, fire extinguishers, the presence of lead paint (where children are present), and/or the lack of adequate means of egress.

Temperature and moisture control: among the most costly problems to address are inadequate heat, cooling or temperature controls; inadequate insulation; proper ventilation, and functioning windows.

Septic Capacity: Another expensive problem that is not uncommon is the inadequacy of septic capacity to handle the water and wastewater needs of the farmworkers housed on-farm.

Appliances: the inadequacy or lack of functioning cooking appliances and bathroom facilities represents another problem that needs addressing.

Scale of the Need

Need is a highly subjective term especially in a situation with so many economic, cultural, and regulatory cross-currents at play. A wide range of farmworker housing conditions exist in the state, ranging from excellent to unacceptable by nearly anyone’s standards. To provide a reasonable sense of scale, the consultants estimate that in order to get farmworker housing to a quality-standard equivalent to that of Vermont’s rural rental housing generally, the following level of improvements would be required. This is based on an overall estimate of 600 farmworker dwellings housing 2,000 workers:

- 150-200 dwellings would require small scale improvements of under $5,000.
- 100-150 dwellings would require moderate scale improvements of between $5,000 and $50,000.
- 75-100 dwellings would require either major renovations or replacements at a cost of $50,000 or more.

In addition to improving the quality of existing housing, a survey of farmers indicates that the potential exists for adding at least 50-75 new on-farm farmworker dwellings in the state, if the financing and permitting conditions were supportive of that effort.

**FIGURE EX-1: SCALE OF FARMWORKER HOUSING NEEDS, BY TYPE, 2021 ESTIMATE**

- 15% 150-200 Small-Scale Improvements (<$5,000)
- 42% 75-100 Moderate Rehabilitation ($5,000-$50,000)
- 21% 75-100 Substantial Rehabilitation and Replacement ($50,000+)
- 21% 50-75 Additional Dwellings ($50,000+)

**Source:** Development Cycles, 3/21
The consultants understand that not all farm employers would or could opt to make these improvements immediately, just as not all rental property landlords opt to improve the quality of that housing. If only 10% of that estimated need was addressed each year, it would require investing roughly $2 million annually and would improve the living conditions of 200 more farmworkers for each year that this money was invested. Most of that money would need to be invested by the farmers themselves. The key for any ongoing Action Plan will be to determine how much and what type of incentives will make private investment possible.

Beyond the needs of the roughly 2,000 hired workers living on farm, the housing improvement needs of low-income farm owners and the affordable housing needs of the roughly 6,500 largely low-wage domestic farm workers who live independently from their employer represent additional segments of farm workers. Their housing supports the farming industry in the state, but a range of factors—the limited availability of affordable housing funds statewide, the decline in rural populations, limited wastewater systems, and zoning limitations—have encouraged the concentration of affordable rental housing into regional centers. Hired farmworkers do not benefit from these conditions.

**Existing Programmatic Opportunities**

At the moment, most farmers look to their traditional lender to finance improvements to farmworker housing, as part of their cost of doing business. There are few resources for technical and development assistance to navigate the permitting, design, and construction process. The study identifies and describes a number of programs or pieces of legislation that offer important models to consider embracing, learning from, piloting, or expanding the scope of, in order to support farmworker housing improvements in Vermont. Each of these programmatic opportunities has both applicability and limitations in terms of how it might be used effectively as a resource to increase the supply and quality of farmworker housing in the state. The full report looks more closely at those conditions for each of these programs.
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</tr>
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Recommendations

The consultant addresses the following recommendations to VHCB as the client for this study, but equally to the Ad Hoc Farmworker Housing group that has been meeting to focus on the need for improvements to farmworker housing in Vermont. The consultant anticipates this latter group will play a lead role in continuing the work anticipated by these recommendations.

1. **Coordinate Efforts.** Identify and provide start-up funding to an existing organization, or if needed, create a new entity, with responsibility for planning and implementing a long-term effort to improve farmworker housing.

2. **Develop Stakeholder Commitment.** Building on the existing efforts by a range of stakeholders in Vermont, identify and seek a multi-year commitment by key stakeholders to develop a prioritized action plan as well as participate in the efforts to fund, implement, and evaluate the execution of that plan.

3. **Action Plan.** Create an Action Plan that provides a compelling vision for an improved farmworker housing future; spells out definitions, targets, and standards for what decent farmworker housing means; sets strategic approaches to tackling the funding, policy and attitudinal challenges; develops specific actions to address prioritized problems; identifies measurable goals, timelines, funding requirements, and policy changes; and assigns specific responsibility for implementing each of these actions.

4. **Continue Dialogue.** Take time in the Action Planning process to more fully understand the needs, constraints, and capacities of both farm operators and hired farm workers around the provision of and occupancy in such housing. It will be equally important for those stakeholders to be able to share their perspectives safely and openly with each other, as well as with those in the funding, policy, and supply chain who can help address some of their challenges.

5. **Educate.** Share examples of good quality farmworker housing to celebrate what is possible. Also shed light on the condition of farmworkers who do not now have decent housing in order to motivate consumers to care. This caring can in turn motivate policy makers to remove barriers or increase funding to address problems, and motivate other players in the supply chain to reward the farms who do commit to providing safe, decent housing, as is done with the Milk with Dignity program.

6. **Tailor Solutions to Farm Size and Farmworker Type.** The consultant recommends focusing on different approaches tailored to five distinct types of farm and farm worker, including:

   » Dairy farms with sales of at least $500,000 who provide on-farm worker-housing.
   » Field crop farms, orchards and processors that participate in the H-2A Program.
   » All other farms who provide worker housing on-farm.
   » Domestic farmworkers, not living on-farm, as a distinct subset of low-income workers in Vermont.
   » Farm operators, whose housing needs are part and parcel of agricultural sustainability in the state.
7. **Segment Solutions by Range of Cost.** Approach solutions at different scales of investment: low-cost improvements that might be funded through grants (<$5,000); moderate rehabilitation supported by cost sharing and moderate-term concessionary lending ($5,000-$50,000); and substantial renovation, as well as new and replacement units that will require a range of grants, incentives like tax credits, and appealing mortgage instruments (>$.50,000).

8. **Combine Enforcement with Incentives.** Commit to both the creation and enforcement of some level of health and safety standards while at the same time committing to creating financial incentives to help meet those standards.

9. **Utilize Existing Programmatic Models.** The existing programmatic opportunities listed above and described in the study represent an important starting point for funding and supporting actions to improve farmworker housing.

10. **Provide Funding for Pilot Projects and Technical Assistance.** Seek pilot funding based on the needs and the challenges identified. One key area of support that the coordinating entity will need to offer is the housing technical assistance capacity to design programs that work with and for farmers. USDA’s Rural Development, the Federal Legislative delegation, COVID-19 recovery funding, VHCB, VLITE, VHFA, and the Vermont State legislature are all potential sources of this support.

11. **Involve Existing Nonprofit Housing Entities.** Engage with the state’s nonprofit housing entities to serve as development partners and technical assistance providers for this effort.

12. **Think Creatively.** The housing needs of hired farmworkers often looks different from that of more conventional rental housing. Given the constraints on cost, permitting, and financing, it will be important to look for creative approaches that address real needs (such as quiet sleeping areas removed from cooking and meeting spaces) rather than those than simply conform to a traditional housing model.

**Next Steps**

Taking action on Recommendations 1 and 2 represent the clear next steps. The consultant is hopeful that the Ad Hoc Stakeholder Group and VHCB will work together to identify a lead entity for this effort and will secure commitments from key stakeholders to creating and implementing a Farmworker Housing Action Plan.
I. INTRODUCTION

Purpose of Study

The Vermont Housing & Conservation Board (VHCB) engaged consultants John Ryan and Jennifer Lenz to assess the needs, challenges and opportunities for improving and expanding the stock of housing available in Vermont for hired farmworkers as well as for housing to serve the principals of those farms and their families. This work combines two critical components of VHCB’s mission: the provision of safe, decent and affordable housing for those who live in the state, and the sustainability of Vermont’s agricultural enterprises. The primary focus of this study is on-farm employee housing.

The purpose of this research is to provide data and perspectives; to articulate issues, challenges, and opportunities; to estimate the scale of need and the costs to address those needs; and to suggest approaches and make process recommendations for a more focused effort to improve the stock of housing that supports agriculture in Vermont.

Farmworker housing in Vermont is one facet of agriculture nested within the complex and changing interplay of farm policy, immigration policy, business practices, cultural and behavioral expectations, and harsh economic realities. In the course of this study, the consultants spoke with no one who did not support the goals of improving both the quality of housing for farmworkers and improving the viability of farming in Vermont. Key to making progress in addressing the condition and availability of safe, decent and affordable farmworker housing is: 1) finding approaches where these two goals are not in conflict with each other; and 2) focusing on that which is within the stakeholders’ ability to influence when so much is not within their control.

Methodology and Sources of Information

The consultants synthesized a range of quantitative and qualitative information to assess need and to make recommendations to address that need. Key among these sources are the US Census of Agriculture for 2017 and earlier; Vermont Dairy Farmworker research and interviews of farmers and Latino farmworkers performed by Dan Baker, at the University of Vermont’s Department of Community Development & Applied Economics, between 2010 and 2019; the Milk with Dignity First Biennial Report: 2018-2019; research done by Migrant Justice since 2014, and UVM Extension’s Bridges to Health program in 2018; the VT Department of Taxes 2019 Current Use Registry; and the VT Department of Labor’s Labor Market Information for 2020 and earlier.

The report also analyzed the responses by 65 farmers to a 2021 survey created for this study (see Appendix A). These respondents were farmers who participated in VHCB’s Farm & Forest Viability Program, were conserved through the Vermont Land Trust, were members of NOFA-VT, or were members of the Champlain Valley Farm Coalition. Appendix B provides a list of other individuals interviewed for this study.
Limitations

The reader of this report should recognize some significant limitations when considering the findings and recommendations provided.

» The most significant limitation is that no systematic evaluation of the quality of farmworker housing in the state exists. That task was beyond the scope of this assessment. Even the number of hired farm workers and especially migrant workers can only be understood within ranges. The consultants have pieced together data from a range of sources, surveyed farmers directly, and sought out qualitative information from professionals with direct experience with many farms in the state, in order to provide estimates of the scale of farmworker housing needs. While the consultants recognize the relatively large potential for error, no findings or recommendations were based on any single piece of information, and all of the data was evaluated based on judgement acquired through more than 25 years of experience working with housing issues in rural Vermont.

» A second meaningful limitation of this work is the lack of an objective standard of what represents farmworker housing that is safe, decent and affordable. Appendix C provides information from Vermont’s Rental Housing Health Code, a code which does apply to Farmworker Housing; excerpts from the Housing and Employment Rights Handbook for Vermont Dairy Workers; and the Housing Standard set by the H-2A Migrant Worker Program. All three documents speak to the need for basic amenities (heat, drinking water, windows, kitchens, bathrooms) and conditions of repair (weather-tight, water-tight, rodent proof, dry). Still, much of what represents sufficient is subjective, driven by complaint and administered by local town officials who are largely volunteers. Moreover, farm worker housing represents a range of housing types from seasonal bunk houses to mobile homes, to rooms in an existing home or non-residential farm structure; each of which has other applicable standards. Getting to a place where there is a common standard for what is acceptable housing for farmworkers is an important step in the process of improving those conditions.

In the course of interviewing stakeholders, no one was denying that there are examples of housing that are clearly inadequate for workers and their families. In looking at the above limitations, the consultants recognize that regardless of how we might define the realistic range of need, that need is larger than the current capacity to address it. Rather than focus on getting better estimates of the scale of the problem, the consultants recommend focusing on providing approaches that support farmers to make investments in this important area of their business.
II. UNDERSTANDING THE ISSUE

The following summarizes key information about what is known regarding the nature of farmworker housing needs in the state in order to provide context for the approaches to improving the quantity and quality of housing for this sector of the population.

1. Defining the Sub-Groups of Farmworkers

No consensus exists regarding how many farmworkers actually work and live in the state. The last Census of Agriculture, for 2017, reports that 20,767 Vermonters identify as farmers, of whom 8,458 are hired workers and 12,309 are considered Farm Producers (largely comprised of owners and their families). The U.S. Census for 2015-2019 records just 8,225 individuals whose occupation is as a farmer. The 2019 U.S. Bureau of Labor Statistics reports employment and wage information for just 1,200 farm workers (many farms and farm workers are exempt from providing wage information). The Vermont Department of Labor data excludes farm workers entirely from its data. Several agricultural professionals expressed the belief that even the 20,767 number used by the Census of Agriculture undercounts those who are actually engaged in farming in the state. For the purpose of this study, however, the consultants used the 2017 Census of Agriculture numbers, unless otherwise noted.

FIGURE II.1: VERMONT FARMERS, BY TYPE, 2021 ESTIMATE

Source: Development Cycles, 3/21
The Census of Agriculture reports that roughly 2,000 farms, or about 30% of all VT farms, hire farm workers. More than half of these employ two or fewer workers; about a quarter hire five or more.

There are several types of workers within this broad category of “farmer.” For the purpose of understanding housing needs, the consultants highlight the following sub-groups.

- **Resident Workers**: this group represents individuals residing legally year-round in Vermont. This group is comprised of:

  - **Farm Producers/Operators**: This is the largest group. It represents the owner of the farm and others, including family members, who have some say in the decisions made about the operation of the farm. These individuals may draw a wage for their work, but most earn their income from the net profits of the farm’s operation. The 2017 Census of Agriculture reports 12,309 such farm producers or just under two persons per farm. As farms are distributed widely throughout the state, so too is this group of farmworkers. More than 85% of these farm producers live on-farm. This group consists of largely farm owners with their own housing needs, distinct from those of the farmworkers they hire. Often the base of the business operation, their housing represents a critical element of the agricultural infrastructure. And like the farmers themselves, much of this infrastructure is aging. Poor profitability makes it difficult to invest in their homes just as it challenges investment in housing for workers.

  - **Hired Farmworkers Commuting to Work**: The next largest group of farmworkers are those resident workers who are paid a wage to do farm work and who live independently from their employer. The consultants estimate this group of farmworkers at between 6,000 and 6,500 workers who work both seasonally and year-round in farming. This group is widely distributed throughout the state, though there are distinct concentrations of such resident workers in Addison, Franklin, Orleans, and Chittenden Counties. Living independently as they do, their housing needs are akin to non-farmworkers and are related to household income and the availability of decent affordable housing in the areas where they work.

  - **Hired Farmworkers Living On-Farm**: Somewhere between 600-800 resident farm workers receive wages for their work and are provided housing on-farm. For most, this housing is considered part of their compensation, though a minority pay rent for this housing. Their needs, as well as those of migrant workers living on-farm, represent a key focus of this study.

- **Migrant Workers**: A second, and critical group of workers to consider are foreign born farmworkers, who may or may not be U.S. citizens or legal residents, and thus may or may not have legal authorization to work in the United States. The vast majority of migrant workers live on-farm.
This group contains two major sub-groups:

**H-2A Workers:** This group of workers are contracted by individual farms through the Department of Homeland Security and the U.S. Citizenship and Immigration Service to work seasonally (for up to 10 months of the year). In 2020, 51 farms executed 142 separate contracts to bring 650 migrant workers to the state. These farms were nearly all fruit orchards and produce farms, though some meat processors use H-2A workers. The H-2A Program requires that the employer provide housing that meets certain standards for the workers it contracts (see Appendix C-3). The program includes housing inspections to enforce those standards. Those requirements, notwithstanding, professionals associated with this program report that the quality of the H-2A housing in the state varies as significantly as does other types of farmworker housing and represents one distinct area of housing need to be addressed.

**Migrant Workers Living On Farm:** The 2017 US Census of Ag estimates that there are 736 migrant farmworkers in the state; a 2018 census of migrant workers conducted by UVM Extension’s Bridges to Health program put the number at 850. The consultants estimate that there are somewhere between 750-1000 migrant farmworkers living on farms. Roughly 75-80% of these workers are unrelated individuals (mostly men); the remainder have families living with them. Here too, the housing needs of the single men, single women, and those of migrant workers with families are distinctly different, though it is currently not uncommon for the different groups to be housed together when they work for the same farm.

One other way to look at farm employment also impacts housing needs.

- **Seasonal and Year-Round/ Dairy and Non-Dairy Farmworkers:** According to the 2017 US Census of Agriculture, about half of the hired farmworkers in Vermont are employed seasonally (less than 150 days) and half work year-round. This corresponds to employment by dairy and by all other types of farms: dairy farms employ half of all hired farmworkers in Vermont, while all other farms hire the other half. Given that most dairy farms operate year-round and most other farms do not, it is reasonable to assume that a substantial majority of year-round farmworkers are employed by dairy farms, while the majority of seasonal workers do not.

2. **Farmworker Housing**

The Vermont Department of Taxes provides the best available estimate of farmworker dwellings in the state. In 2019, 4,259 unique farms participated in the state’s Current Use Program, which provides local property tax relief to farms where the principal owners earn at least 50% of their income from that farming operation. Currently about half of all farms in the State are in the registry, but the registry contains the overwhelming share of those farms large enough to have hired workers. Employee housing is eligible for inclusion in the program provided that the housing is solely for employees and is provided as part of the employees’ non-monetary compensation. The 2019 Registry included 345 farms that listed 559 total employee housing dwellings, of which 509 are registered in the program. Seventy percent of the employee housing dwellings in the Registry are located in three counties: Franklin (33%), Addison (24%) and Orleans (13%).
FIGURE II.2: WORKERS LIVING ON-FARM, BY TYPE, 2021 ESTIMATE

Source: Development Cycles, 3/21

NOTE: The registry does not say what type of housing these employee dwellings represent, how many bedrooms they contain, or how many occupants reside in them.

FIGURE II.3: FARMWORKER GEOGRAPHIC AREAS OF CONCENTRATION, BY RESIDENCE ON FARM, 2021 ESTIMATE

Source: Development Cycles, 3/21
3. Defining Adequate Farmworker Housing

Farmworker housing is considered rental housing under the provisions of Vermont Law (9 V.S.A. § 4457) which requires simply that the landlord “maintain, throughout the period of the tenancy, premises that are safe, clean, and fit for human habitation and that comply with the requirements of applicable building, housing, and health regulations.” Appendix C gives additional information from that statute, and provides more specific standards as compiled by the Vermont Law School in an Employment and Housing Rights Handbook for Dairy Workers, as well as a checklist of conditions to be inspected as part of the federal H-2A Migrant Worker Program.

To that, the consultants offer the following vision of what adequate farmworker housing might entail:

**Adequate farmworker housing for single workers provides a safe, clean, quiet, comfortable (i.e., temperature controlled) and private or semi-private place to sleep with ready access to adequate bathroom facilities to maintain personal hygiene, ample and adequate facilities to store and prepare food, and adequately furnished space to eat and socialize with other workers without disturbing the sleep of those working on different shifts.**

**Adequate farmworker housing for families adheres more closely to the requirements of rental housing generally. These include the safety, cleanliness, and comfort conditions, as well as the bathroom, food preparation, eating and social spaces listed above, but also includes lead abatement, bedrooms for non-infant children, and a choice to live separately from non-family workers if desired.**
4. Identifying Key Housing Problems

Based on reports by H-2A inspectors, Milk with Dignity, UVM, and UVM Extension staff, as well as farmer interviews and surveys, where inadequate housing exists, the key challenges include the following:

- **Noise as a function of overcrowding**: perhaps the most impactful need to address for single workers is insufficient privacy, space separation, and/or noise buffering to allow for quiet sleeping conditions. This is especially a concern for dairy workers where the need for round the clock operations result in some workers having to sleep while others are working or eating throughout the day or night.

- **Cleanliness**: the most common and noticeable challenge which shows itself especially (though not exclusively) in the housing for single workers, is lack of regular cleaning, inadequate maintenance, insufficient trash removal facilities, and/or limited food storage that promote a healthy living environment. This condition may require providing the tools, resources and support that allow for a clean environment; setting and enforcing consistent expectations; providing prompt maintenance where it is the owner’s responsibility to do so; and generally supporting a culture of greater cleanliness. Education is a central component of addressing this need.

- **Safety**: the most essential inadequate housing condition to address is safety, which includes the lack of smoke and carbon monoxide detectors, fire extinguishers, the presence of lead paint (where children are present), and/or the lack of adequate means of egress.

- **Temperature and moisture control**: among the most costly problems to address are inadequate heat, cooling or temperature controls; inadequate insulation; proper ventilation, and functioning windows.

- **Septic Capacity**: Another expensive problem that is not uncommon is the inadequacy of septic capacity to handle the water and wastewater needs of the farmworkers housed on-farm.

- **Appliances**: the inadequacy or lack of functioning cooking appliances and bathroom facilities represents another problem that needs addressing.
III. FARM OWNER AND FARMWORKER PERSPECTIVES

1. Farm Housing Survey with Farm Owners

From January to March 2021, the consultants offered farm owners an opportunity to respond to a survey of farmworker housing needs (See Appendix A) that addressed their perceived needs, opportunities, and challenges. This survey included questions about housing improvements and additions for their hired workers as well as for themselves and family members working and living on the farm. The survey went out to current and past participants in VHCB’s Farm and Forest Viability Program, farms associated with the Vermont Land Trust, farms members of NOFA-VT, and farms in the Champlain Valley Farmers Coalition. In all, 65 farmers responded to this survey.

All but four of the 65 farmers who responded to the survey employed farmworkers in 2020: 18 (28%) employ only year-round employees; 14 (22%) only seasonal; and 32 (50%) employed both. Cumulatively, this group of farms hired 627 workers, 60% year-round and 40% seasonal. The median number of employees was ten. Taken together, these respondents employ about 10% of the hired farmworkers in the state.

More than 80% of these respondents already provide some housing for their workers, either on farm or nearby. In all, they provide housing for half of their hired farm staff. Four out of five workers for whom they provide housing are individuals not living with their families. Just over 10% live with one other family member; just under 10% live with more than one family member.

If they had the capacity to do so, 42% of these respondents said they would provide additional housing for their employees. Most of the comments acknowledged that their motivation was driven by the lack of rural rental housing affordable to workers earning farming wages. If it were feasible, this group said they would house an additional 87 year-round workers and 122 additional seasonal workers. If nothing else, these responses suggest a strong willingness to include “housing provider” as part of their job description.

These farmers provided a range of answers to the question of what they needed to do to improve or expand their on-farm housing. Their responses fall into several key areas: new and replacement (several specifically mentioned the desire to replace trailers or mobile homes) was the leading response. Septic upgrades and bathroom improvements came next, followed by improvements to privacy, HVAC, kitchens, and common areas.
When asked how much the desired improvements would cost, their responses ranged with roughly one-third each reporting under $10,000; $10,000 to $35,000; and over $35,000. For new housing, 45% expected that cost to be over $100,000; 55% thought it would cost less than that.

Nearly all of these respondents said they would be more likely to make these improvements or additions, if grants would cover a portion of the cost. Half that number felt access to low or no interest loans would be incentive enough. Interestingly, more than half said that they would be likely to do it if they had technical support to help design, permit, finance, and/or oversee the construction of this housing.

These farmers acknowledged that worker housing improvements would have a range of benefits to their business. Chief among these were their ability to attract and retain workers (more than half listed this as the #1 benefit) or greater worker satisfaction (two-thirds had this either first or second in terms of importance). This human desire to provide greater satisfaction was amplified over and over in their comments.

When asked whether their decision to accept grants would be influenced by a need to repay the grant if the housing was no longer used for workers, more than half said it would discourage them from developing housing via that path. Here, the uncertainty of the future—would they find workers who didn’t need housing? What if their overall need for labor declined? What impact would this have in finding a buyer for the farm?—made this option less appealing to most. Still, nearly 40% said they could live with use covenants and several others noted that it would depend on the actual language of those restraints. In the consultants’ view, any effort to incentivize farm housing through deed restricted grants, cost sharing, or concessionary financing will need to be crafted with the input from farmers. As with many other well-intentioned approaches, success or failure lies in the details.

Not surprisingly, these respondents noted that finances represented far and away the greatest constraint to improving or adding to their farmworker housing stock. More than two-thirds listed lack of adequate access to grants or financing as the first or second greatest challenge among the six options given. For about 20%, conservation restrictions were the primary problem (land use limitations are either the essential problem or no problem at all for most). The inability to cover the additional operating costs associated with the investment, lack of time to make this a priority, and lack of technical support followed in terms of barriers to action.

2. **Summary of Farm Operator Constraints**

The comments provided to the survey support observations made by others who were interviewed for this study regarding the nature of the barriers to addressing farmworker housing needs. These are the key barriers to action.

» **Farm Economics Constraints**: Low profitability and increasing costs continue to marginalize many small and mid-sized farms, especially dairy farms, in Vermont. This hampers the ability to add to debt or to increase operating costs. According to the 2017 Census of Agriculture, only about 13% of the 6,800 farms in Vermont had net cash income from operations of at least $50,000 and 58% of all farms actually reported net losses. Solutions that work with
this reality, such as VEIC’s approach that is looking to offset loan costs through utility cost savings, have the best chance of success.

» **Land Use Limitations:** Most of Vermont’s farms with on-farm housing are on conserved land or receive current use tax exemptions that complicate, and in some instances prohibit, the creation of new or expansion of existing on-farm worker housing. A key to addressing this constraint is working with the key covenant holders to provide workable approaches and then providing specific technical assistance (TA) support to work through the process.

» **Loan Securitization:** With so many farms already deeply leveraged, a key challenge to financing for on-farm housing is that the value of the asset would likely accrue to the benefit of the lender whose loan is secured by the farm’s assets. This is why the USDA requires that “on-farm” housing be done on a separate parcel. This may be a knotty problem to resolve. One lender suggested looking at adjacent properties, leasing, and removable mobile homes as possible creative workarounds to what might otherwise be an obstacle to lending.

» **Return on Investment:** In an environment of uncertainty about the long-term sustainability of farming itself, especially dairy farming, in Vermont, the farmer’s willingness to make a long-term investment in the farm’s infrastructure is constrained. Will they be able to pay off the debt on the transfer of the farm? Will they need the level of farm help in the future? For the many conserved farms, will the Option to Purchase at Agricultural Value (OPAV), allow for a return on this investment? These are just some of the questions that will need to be addressed in order for there to be significant buy-in from farmers on making major on-farm improvements or additions to their farmworker housing.

» **Capacity to Put Projects Together and Access Financing:** Another constraint is the sheer time and effort needed to prioritize and act on an intention to improve the farmworker housing stock. As with permitting, TA can provide some important assistance to overcome this challenge. It does also raise the much larger question of whether farmworker housing could be developed by a separate entity and leased to the farm as a turnkey product.

» **Cultural Differences:** It would be remiss not to acknowledge that for some the resistance to investments in improving on-farm housing comes from a combination of negative experiences, differing cultural expectations, and implicit and explicit bias. This is by no means a blanket characterization of the farm producer community. On the contrary, the survey responses were often moving in their desire to provide for good living conditions for those they consider true partners in their endeavor. In the consultants’ view, no good comes from pretending that such attitudes don’t exist. With dialogue, education, and supportive partnerships, the impact of these cultural differences can diminish. It takes resources and commitment to support those activities, which are already out there working toward this end.
3. Farmworker Perspectives and Constraints

The scope of this study did not allow for a direct survey of the residents of on-farm worker housing. Instead, the consultants drew from the research done by the Bridges to Health Program at UVM Extension in 2018; by Professor Dan Baker at UVM’s Department of Community Development & Applied Economics, who conducted interviews with migrant dairy farmworkers in four separate research studies between 2010 and 2019; from the on-farm assessment work done in 2018 and 2019 by Migrant Justice’s Milk with Dignity Program; from 2014 worker-to-worker survey with 172 farmworkers on dairies throughout Vermont done by Migrant Justice; and by interviews with Dan Baker, Kelly Dolan, Marita Canedo, and Tom Fritzsche from these three organizations. Here are some of the highlights from that research (note that all of their work focused on dairy farms):

» Latinx workers’ satisfaction with their housing varies widely. For the majority of workers, housing was either not stressful or caused only low levels of stress. However, for about a third of Latinx farmworkers the quality of their housing was a significant cause of stress, with 11% reporting it caused them extreme stress in 2016. Of 173 dairy workers surveyed on 116 farms, 15 farms (13%) had at least one worker reporting extreme stress, and 43 farms (37%) had at least one worker reporting moderate or extreme stress.¹

» One in ten on-farm migrant workers shares a bedroom with an unrelated individual.¹

» Farmer owners place more than three times the value of the housing they provide to domestic workers ($14,100/ year) than to migrant workers ($4,367).¹

» COVID-19 raises several concerns. First, farmworker housing that is crowded presents opportunities for COVID to spread rapidly. If this were to happen, finding alternative housing to quarantine workers who have tested positive or who are ill is extremely limited. Exacerbating this issue is that housing workers off the farm exposes those workers to increased immigration enforcement, a particular concern in Vermont’s northern dairy counties.²

The Bridges to Health Study found both structural and non-structural housing concerns:

» **Non-Structural Needs**: joint housing inspections involving both the farmer and worker; communication and education supports to ensure shared expectations; greater sanitation and general upkeep; better bilingual communication strategies; and consistent applicability of the guarantees of education rights and supports for migrant workers’ children who would otherwise qualify as homeless under the McKinney-Vento Homeless Assistance Act.

» **Structural Problems**: Pest infestations (bed bugs, cockroaches, fleas, rodents); inadequate heat and light; inadequate access to clean water; inadequate food storage (refrigeration) and cooking facilities.

¹ Brown, Vermont Migrant Dairy Housing Brief, March 08, 2021.
² Interviews with Brown, Dolan Canedo and Fritzsche, December 2020 and March 2021.
In a 2014 Farmworker-to-Farmworker survey by Migrant Justice of conditions on Vermont Dairy Farms, 20% of workers responded that they had no access to water or bathrooms at work and 15% reported insufficient heat in their housing.

In 2018 inspections of dairy farms enrolled in the Milk with Dignity Program found that only 44% of participating farms had smoke detectors, 24% had carbon monoxide detectors, and 32% had fire extinguishers in their employer-provided housing. In one year after that first inspection, compliance with these basic safety provisions increased to 64%, 55%, and 65% respectively.

IV. PROGRAMMATIC AND FINANCIAL RESOURCES

Most farmers in Vermont look to their traditional lender to finance improvements to farm housing as part of their cost of doing business. There are few resources for technical and development assistance to navigate the permitting, design, and construction process. The following section looks at a range of federal and state programs, funding sources, or pieces of legislation that offer important models to consider embracing, learning from, piloting, or expanding the scope of in order to support farmworker housing improvements in Vermont. Each of these programs has both applicability and limitations in terms of how it might be used effectively as a resource to increase the supply and quality of farmworker housing in the state.

1. Federal Programs

   USDA Farm Labor Housing (FLH) Loans and Grants (Sections 514/516): The FLH program provides loans (Section 514) and grants (Section 516) to buy, build, improve, or repair on-farm and off-farm housing for year-round or seasonal agricultural workers who are U.S. citizens or are legally admitted to the United States and authorized to work in agriculture. The housing may NOT be used by farm owners or their immediate family.

   NOTE: Given recent changes in regulations H-2A workers are now eligible to live in Section 514/516 housing. The USDA is also currently running pilot projects that allow for the mixing of farmworker and non-farmworker populations.

   In practice, the FLH program focuses on off-farm housing developments and the bulk of funds are used for projects in states with a large year-round agricultural output. Section 516 grants are only available to off-farm developments. These grants can cover up to 90% of the Total Development Costs of the project with a $3 million maximum. Farmworker associations, nonprofits, and public agencies, but not farm owners, can apply for off-farm grants. Typically, the remaining costs are financed with Section 514 loans. The 514 Loans, which can be used for both on-farm or off-farm projects, have a 33-year term and carry a 1% interest rate.

   NOTE: FLH Projects built in the program can also apply for RD 521 Rental Assistance which allows tenants, though not H-2A tenants, to pay 30% of the Adjusted Gross Income for rent.
Farm owners, nonprofits, and public agencies can apply for Sec. 514 loans. Typically, farm applicants must demonstrate that they are unable to obtain credit elsewhere.

The key strengths of the program are clearly the extent to which grants and low cost loans cover the development costs. The FLH Program provides a dedicated funding source for farm workers and can be developed off-farm at a scale that will make sense to the nonprofit development community in certain areas with concentrations of domestic farm workers like Addison, Franklin, and Orleans Counties.

The program has some important limitations. All residents within the housing must be able to prove they are legally admitted citizens or permanent residents of the U.S. or are migrant workers contracted through the H-2A program. The definition of farm labor does extend to some processing of the commodity produced but does not extend to manufacturing activities like cheesemaking and most value-added production. Another significant limitation is that the program does not consider development fees an eligible expense for its grant program. This limitation makes it less immediately attractive for a nonprofit developer to utilize the funding source, though many projects are done combining the Section 514/516 program with Low Income Housing Tax Credits where Development Fees are an eligible expense. Another limitation is that the application process is relatively complicated, especially for individual farmers, and the selection criteria does not favor the types of projects that would best serve Vermont.

In all, the consultant sees this program as being an untapped resource in the affordable housing toolkit for project development, especially in Addison, Franklin, Orleans, and Chittenden Counties. Working with the housing Nonprofits in these areas may provide ways to develop this resource for rural Vermont rental housing focused on the hired farm labor community, even with the constraint it has on precluding most migrant workers. The consultants also see the program having some utilization at the individual on-farm level, both for small scale, one or two-dwellings, and moderate scale dormitory type dwellings. The ability to house H-2A workers within this program opens this option up to a specific sub sector of farms in the state that rely upon these workers. VEIC is currently utilizing the 514/516 program to finance their Zero Net Energy Farmworker Home initiative (see below) which is aimed at the small and medium sized farm. Appendix D provides a copy of the guidance USDA’s Rural Development gives to those considering development Section 514/516 Housing.

The U.S. Department of Labor (DOL) National Farmworker Jobs Program (NFJP):
The U.S. Department of Labor administers this program through regional grantees (Pathstone Corporation in Rochester, NY serves VT). The program provides migrant and seasonal farmworkers with a variety of services including housing. Regional grantees administer a number of housing grant programs including a mini grant program for housing improvements up to $2,000 and no interest loans up to $10,000. All the funding for these two grant programs is currently allocated, but the Program will be up for renewal in 2024. The consultant recommends that the action planning process look at supporting an expansion of Pathstone’s NFJP presence in Vermont ahead of the 2024 program renewal.
date. In addition, they recommend that the stakeholders look closely at the structure of these mini-grant and mini-loan programs, because they correspond to one key area of housing need (small scale improvements to safety and adequate kitchen and bathroom facilities), and could be funded and administered locally ahead of any NFJP funding in 2024.

2. State Funded Models Outside of Vermont

New York State’s Farm Worker Housing Program (FWHP): New York State’s Farm Worker Housing Program is an interest-free revolving loan program to assist in the improvement of existing housing or the construction of new housing for farm workers. The program is administered by New York State Homes and Community Renewal (HCR) in partnership with a local loan administrator (currently Farm Credit East). The local loan administrator is key to the success of the program and must demonstrate an ability to provide financial assistance and service to agricultural producers.

The FWHP started in 1995 with a $3M state appropriation to provide low-cost loans of up to $100,000. The loans are provided to agricultural producers who can demonstrate the funds are needed to purchase, improve, or construct farm worker housing. All loans are interest free with a one-time origination and servicing fee to the local loan administrator of five percent of the loan amount. The loan and the servicing fee are repaid with equal annual repayments over a loan period of up to 10 years. The loans are not secured and there is no mortgage on the farms. If the improved or constructed housing stops being used for farm workers, the remainder of the loan is due at that time. Importantly, there is no U.S. residency requirement for the workers housed in this program.

The revolving loan fund has provided over 400 loans to farms totaling approximately $27M. Only one loan has defaulted since the inception of the program, and New York State has not lost any of the principal in the fund. The average loan is between $75,000 to $100,000. Until 2020, the program was operating with a $9M pool of money provided by the state. In 2020, the state legislation increased the loan cap to $200,000 and increased the funds to $15M.

The loans have helped provide clean, functional housing for farm employees allowing farmers to attract and retain quality employees. Additionally, the housing financed by this program has made it easier for farmers hiring seasonal employees to meet the housing regulations of the H-2A program and New York State Farm Laborers Fair Labor Practices Act.

The two following profiles were provided by Farm Credit East of farms that have successfully used New York’s FWHP.

A 700-cow dairy located in Cortland County, New York purchased two local residences through the Farm Worker Housing program in 2006 and 2010 to help house their 13 farm workers. In 2006, the farm expanded their herd and left their original housing overcrowded. All employees of the farm reside in houses provided to them by the farm, two of which were funded by the FWHP. After purchase of the residences, the farm required no new hires over
a period of three years, which the owner attributes to the quality of housing they provide to their employees.

In 2008, an apple orchard in Oswego County, New York, constructed a bunk-style facility that cost approximately $110,000 and houses up to 26 seasonal employees. The housing meets H-2A requirements and allows the facility to expand their workforce as well as replace some older mobile homes that housed workers.
The consultants see this model as one compelling option for the State to consider as it addresses the constraints of securitization, long-term mortgages, and the need required by federal funds to insure the citizenship of all occupants.

» **Oregon’s Agricultural Workforce Housing Tax Credit Program (AWHTC):** This State-created function gives a state income tax credit to investors who incur costs to construct, install, acquire or renovate agricultural workforce housing. The tax credit may be taken on 50 percent of the eligible costs paid to complete a farmworker housing program. The total amount of available credits for each calendar year is $3.625 million. There is a set-aside for on-farm projects of $750,000. The owner/operator of the housing must agree to maintain the housing exclusively for agricultural workers for 10 years. Occupants may work part of the year as agricultural workforce and have other non-agricultural jobs part of the year. As long as one family member in the housing unit has been an agricultural worker for part of the year, the housing unit qualifies for residency. In a multi-unit dwelling, not all units need to be for agriculture workforce housing, provided that the tax credit is apportioned according to the percentage of units for agricultural workforce housing. Owners and operators of the farms or their relatives, are excluded from the definition of agricultural workforce. The cost of purchasing land is not an eligible cost covered under the tax credit. There are no U.S. legal status requirements for residents.

According to data from Oregon’s Housing and Community Services, between 2001 and 2012, tax credits were an integral part of the funding that constructed 1,257 farmworker housing units; 830 were off-farm community-based units and 437 on-farm units. The Oregon program represents an important funding model for the State to consider adapting to the farmworker housing needs in Vermont. The Vermont Housing Finance Agency administers both federal and state tax credits programs for affordable housing and may be the best conduit for implementing this kind of program in Vermont.

3. **Vermont Based Opportunities**

» **Zero Energy Modular (ZEM) Program:** Efficiency Vermont, in collaboration with the Milk with Dignity Standards Council (MDSC), Vermont Community Foundation (VCF), Vermont Low Income Trust for Energy (VLITE), and farmers, is currently involved in a pilot project on a dairy farm in Hardwick. They are using the RD 514/516 loan program to finance the development of an Efficiency Vermont Zero Energy Modular (ZEM) home, to house both a farmworker family and single farm-worker now living together in an outdated and inefficient mobile home. The combination of the ZEM’s significantly reduced annual maintenance and energy costs, paired with initial cost buy-down and concessionary rate financing, results in a package that can achieve monthly payments which are no more than the farm is currently paying for utilities alone on the existing dwelling. The result will be two separate living spaces with far greater comfort and superior long term value. This project represents a key model to learn from for a program that may, with a streamlined process that reduces the length and depth of TA skills needed to develop such housing, provide a scalable approach to address especially energy-inefficient housing.
Combined partner funding at > $35,000 per unit is available for eight ZEMs dedicated to farm labor housing to be installed at farms across Vermont between now and December 2022. These units would replace or augment existing housing, varying by farm depending on specific needs, but including two to five-bedroom units. Work with farmers will determine whether units are owned by a non-profit housing partner or owned and maintained by individual farms.

» **Milk with Dignity (MWD) Program**: This program, initiated by Migrant Justice in partnership with Ben & Jerry’s, provides market-based incentives for dairy farms that commit to complying with a set of work standards for their farm labor that includes housing quality standards. The Milk with Dignity Council does annual inspections of the participating farms and have made substantial progress in improving a range of work and living conditions for the workers in these participating farms. The current roster of 64 Milk with Dignity farms produce about 10% of the milk supplied by Vermont dairies. Supporting MWD’s efforts to increase the number of retailers and other milk purchasers to join Ben & Jerry’s in this program, will help scale this effort and tap a resource that has found ways to involve both workers and farm owners in problem solving housing deficiencies. It may be possible to leverage public funds to help attract private participation by retailers and producers in helping fund housing improvements.

» **VHFA**: VHFA has a combination of bonding capacity, tax credit authorization, and programmatic revenue that could be put to use to help fund initiatives to support a range of farmworker housing initiatives. They have been involved in the stakeholder sessions and are encouraging about the potential for partnership with this effort. In the consultants’ view, they may be a key partner going forward. Understanding both their capacity and their constraints will be an essential task for whoever implements this effort.
COVID Recovery Funding: In the fall of 2020, the legislature authorized $5 million in funding to make stimulus payments available to migrant workers excluded from the federal CARES act funding because of their immigration status. According to the Vermont Community Foundation, the organization tasked with distributing those funds, by mid-March 2021 only about a quarter of those funds had been claimed. The State has extended the distribution window through the end of May 2021. Given the likelihood that not all of those funds will be distributed by then, the idea of repurposing those unspent funds to support the creation of on-farm worker housing would be of more value to those for whom it was originally intended than to have the funds returned to the general co-funders. Ensuring that that is an option on the table when and if the time comes to repurpose those funds will be an important function of whoever is taking immediate responsibility for next steps in this process.

TA Support from the VHCB’s Farm & Forest Viability Program (F&FVP) and from UVM Extension: These two important entities in the state already provide technical assistance to farmers. If their network of advisors and staff were additionally trained to provide support to farmers around land use restrictions, permitting, financing, and project management, they would help address several of the barriers to progress on this issue.

TA Support from the State Homeownership Centers: the Vermont NeighborWorks Alliance consists of five local housing non-profits who offer the full range of affordable housing service. These five include Rural Edge in Lyndonville, Champlain Housing Trust in Burlington, Downstreet Housing & Community Development in Barre, NeighborWorks of Western Vermont in West Rutland, and Windham and Windsor Housing Trust in Brattleboro. Each of these organizations has a full service Homeownership Center, that provides services ranging from home purchasing to hazard mitigation, to help with job costing, bidding, and inspections, to weatherization and energy grants and loans. While these centers do not currently have a focus on farmworker housing, they have the human capacity to provide critical assistance to individual farm projects if there was a way to engage and support their involvement in the process.
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V. SUMMARY OF FINDINGS

1. Scale of On-Farm Worker Housing Needs

In order to get on-farm farmworker housing to a quality-standard equivalent to that of Vermont’s rural rental housing generally, the following level of improvements would be required. This is based on an overall estimate of 600 on-farm employee dwellings housing 2,000 workers:

» 150-200 dwellings would require small scale improvements of under $5,000.
» 100-150 dwellings would require moderate scale improvements of between $5,000 and $50,000.
» 75-100 dwellings would require either major renovations or replacements at a cost of $50,000 or more.

In addition to improving the quality of existing housing, a survey of farmers indicates that the potential exists for adding at least 50-75 new on-farm farmworker dwellings in the state, if the financing and permitting conditions were supportive of that effort.

The total cost to upgrade the existing on-farm worker housing stock over ten years would be about $2 million a year and would benefit 200 more workers for each year that those investments were made.

2. Farm Owner Housing

In 2017, only 42% of Vermont’s 6,808 farms reported drawing any net income from their farming operation. Only 894, (13%) had a net income of $50,000 or more, which was the average wage for all work in Vermont in that year. At the same time, 35% of the primary producers (the owners) in 2017 were 65 and over; their median age was 58 years old. Eighty-six percent of these primary producers resided on the farm. Given these reported ages, incomes and tenures of farmer owners, it is reasonable to see the group of farm owners as representing a meaningful share of the state’s lower-income, rural homeowners. Any action plan to improve the quality of housing for farmworkers should consider directing some resources to lower-income operators themselves in terms of low-cost financing for weatherization and housing quality improvements. At a minimum, supporting the housing needs of both the farm owners and their workers creates conditions in which the decision-maker – the farm owner– feels that their own needs are not being ignored and may be more disposed to improve both.

3. Affordable Housing for Farmworkers Living Off-Farm

By the same token, roughly 6,500 of the 8,500 hired farmworkers in Vermont live in housing that is not on-farm. According to the U.S. Bureau of Labor Statistics, as a class, Vermont’s hired farmers and farm laborers earn only about two-thirds of what non-farm workers in the state earn. This group also represents a class of rural workers for whom decent, affordable housing is often an issue. This reality was highlighted as a motivation for farmers to provide housing in their survey responses.
Looking at the USDA 514/516 program as a potential source of funding from rental housing dedicated to domestic farm workers has potential to target this group specifically and may be feasible for a housing of some scale in certain locations in Addison, Franklin and Orleans County.

4. Key Challenges to Improving Housing Conditions in Vermont

In order to make significant improvements in the quality and quantity of farmworker housing, the following key challenges will need to be addressed in some fashion.

- **Economic Capacity of Farm Operations:** facing serious economic constraints, farmers will respond best to grants, cost sharing, and long-term concessionary lending. Being sensitive to the farm’s operational cost constraints does not mean letting inadequate conditions persist. Key will be creating programs that can demonstrate measurable benefits such as energy cost reductions, greater productivity, and lower worker’s compensation costs in ways that offset new debt coverage or operational costs. Proving that good housing can produce positive bottom line results will be key to the success of any FWH effort. Expanding Migrant Justice’s Milk with Dignity Program is one example of how to fund improvements to housing by unlocking new financial capacities.

- **Income and Wage Limitations:** the low wages paid for farm work like the unsustainably low cost of food itself stretches into the realm of things beyond the stakeholder’s control, but one underlying and core challenge to decent affordable housing for rural workers and farm-workers in particular, is the inability of most farm businesses to pay their workers a truly livable wage.

- **Immigration Policy:** Dairy farms work within a system that absolutely relies on workers we cannot officially acknowledge are here. If one policy change could change the dynamics that contribute to inadequate farmworker housing, it would be the recognition by the federal government that these workers are performing essential duties for which there is no realistic alternative, and therefore be granted the authorization to work and reside here legally. Here too, this challenge leads into territory likely beyond the ability of the direct stakeholders to change.

- **Land Use Restrictions:** Partly perception, partly bureaucracy, partly the inability of the legal structures of conservation to adapt to the changing realities of a land-based working environment, land use issues are largely site and case specific. As such, the key resource needed is the assessment, guidance, and facilitation skills needed to address individual farm conditions and housing development goals. The need for farmworker housing is not going to go away, so while going back to problem-solve existing covenants is one factor that needs attention, creating new Use Covenants more supportive of making farmworker housing easier to add later, will be a key consideration for farms going forward.

- **Permanent Affordability Restrictions:** The funding for farmworker housing will most likely emerge from existing affordable housing development channels. In most respects, that is as
it should be. However, a working farm functions with different timelines and goals than a residential parcel when it comes to the resale and use covenants that accompany public funding for affordable housing. The demands for permanent affordability on what amounts to special use housing provides some unique challenges that will need to be worked out in order to see changes at scale to the farmworker housing.

» Grant Funding Limitations, Complexity, and Disincentives: It is a primary goal of public grants to reward behaviors that we, as a society, want to encourage. One difference between the most successful grants and those which fail to accomplish their aims, is often the ability of the former to stay focused on one truly important goal. For farms which have a range of environmental, food safety, animal care, and labor practice issues that are subject to public scrutiny, there will inevitably be the temptation to use “free money” as a carrot to solve everything at once. If there is to be significant improvements to the quality and quantity of on-farm worker housing in Vermont, it will be important to keep the focus on that goal.

Dairy Farm in Franklin County: This operator, who requested anonymity, constructed the following farmworker home in 2019 on an 800-cow dairy. The farm generally has 4 full-time workers for the dairy operation. The farm owner purchased the farm in 2008, which came with two mobile homes on the property — one was a small three-bedroom mobile home, and the second was in such bad shape that it was unlivable. As the farm grew, the one mobile home was not enough to house their farm workers.

The farm removed the one mobile home in bad shape and constructed a new one-story approximate 1,800-square foot building with five bedrooms, two bathrooms, a kitchen and common living room to house their farm workers. The updated building required the farm to design, permit, and build a new larger mound septic system. The building was designed with the common spaces on one end and the bedrooms at the other with additional insulation in the walls to try to limit the noise from their fellow workers at different shift hours.

Much of the labor and equipment used to construct the septic system and the new building was completed by the farm owners themselves and were assisted by family members during permitting and design process. The cost was approximately $7,000 for engineering design and materials for the septic system and a little over $100,000 for the building itself. The owners used their established line of credit to pay for the construction. The farm owner reported that they currently have a great crew of farm workers, which they attribute to having good housing to accommodate them. The farm workers are happy with the living space and are staying longer because of it.
» **Limits on Availability of Public Funding:** This study shines a spotlight on one housing problem among many. The total pot of money available to provide affordable housing in Vermont is inadequate to the task. Recognizing this, it will be important both to advocate for farmworkers’ share but also to find keys to leverage the private funding potential that farmers do have. Often making it easy to do is as important as making it cheaper to do. Good quality TA support may be one of the best ways to leverage public funding to increase the stock of safe, decent affordable housing.

» **Patterns of Normative Behavior:** Maintenance and cleanliness of housing can be a concern in any kind of rental housing, including farmworker housing. Additionally, most of the workers living in marginal or inadequate on-farm housing are people who often work very long hours doing dirty manual work. Acknowledging that does not absolve landlords from providing decent housing nor does it condone lack of basic rental maintenance behavior where it exists; it does suggest taking a fresh look at the design, maintenance, and priorities for housing that serves this demographic.
VI. RECOMMENDATIONS

The following recommendations are addressed to VHCB as the client for this study, but equally to the Ad Hoc Farmworker Housing group that has been meeting to focus on the need for improvements to farmworker housing in Vermont. The consultant anticipates this latter group will play a lead role in continuing the work anticipated by this set of recommendations.

1. **Coordinate Efforts.** Identify and provide start-up funding to an existing organization, or if needed, create a new entity, with responsibility for planning and implementing a long-term effort to improve farmworker housing. The function of this coordinator will include: convening stakeholders to develop an Action Plan; seeking funds and serving as the eligible entity for receiving state, federal and potentially philanthropic or other funds; coordinating efforts to implement, monitor, and evaluate the action plan once created. Critical to the success of this coordination function will be its credibility with both farmers and farmworkers, as well as those stakeholders whose help and resources will be needed to make a meaningful improvement in the housing conditions.

   *Note: Those few states which have tackled farmworker housing conditions with any level of success, as well as those that provide integrated education, housing, health and social services to farmworkers all have such a coordinating entity.*

2. **Develop Stakeholder Commitment.** Building on the existing efforts that have resulted in several meetings by a range of stakeholders in Vermont, identify and seek a multi-year commitment by key stakeholders to develop a prioritized action plan as well as participate in the efforts to fund, implement, and evaluate the execution of that plan. Do not overlook the importance of participation in this stakeholder group by organizations that represent farmworkers and farm owners directly. Given the risks associated with non-resident workers face in making themselves visible, it is especially important to make sure an organization like Migrant Justice has a seat at the table in terms of prioritizing needs. The following represents just some of the organizations the consultant recommends be participants in this stakeholder process.

   - Addison County Housing Trust
   - Cabot/ Agrimark
   - Champlain Housing Trust
   - Dairy Farmers of America
   - EverNorth Rural Ventures
   - Migrant Justice/ Milk with Dignity Program
   - Pathstone Corporation
   - Rural Edge
   - Yankee Farm Credit
   - USDA Rural Development
   - UVM College of Ag & Life Sciences
   - UVM Extension/ Bridges to Health & Migrant Education Programs
   - VT Agency of Agriculture, Farms & Markets
   - VT’s Federal Legislative Delegation
   - VHCBA’s Housing, Farm Viability, and Conservation Divisions
   - Vermont Housing Finance Agency
   - Vermont Land Trust
3. **Action Plan.** A critical first step for this stakeholder group is to create an Action Plan that does the following: expresses a compelling vision for an improved farmworker housing future; spells out clear definitions, targets, and standards for what decent farmworker housing means; sets strategic approaches to tackling the addressable funding, policy and attitudinal challenges; develops specific actions to address prioritized problems; and assigns measurable goals, timelines, funding requirements, policy changes, and specific responsibility for implementing each of these actions.

4. **Continue Dialogue.** This study frankly scratches the surface of just some of the challenges that stand in the way of there being an inventory of farmworker housing in Vermont that truly serves both the business and human needs of both farmworker and the farm operator. The consultant recommends taking the time to more fully understand the needs, constraints, and capacities of both farm operators and hired farm workers around the provision of and occupancy in such housing. It will be equally important for those stakeholders to be able to share their perspectives safely and openly with each other, as well as with those in the funding, policy, and supply chain who can help address some of those challenges.

5. **Educate.** As the study suggests, there is good farmworker housing in the state right now. There are new units being developed and renovated on farms without a comprehensive plan and without much funding focused on the provision of this need. Learning more about how and why some individual farms were able to make this happen and what costs and benefits those investments have yielded will create important stories. These stories need to be shared and celebrated to give farm operators an understanding of the standards others have been able to reach, and provide an increasing number of templates for improving the farmworker housing stock. Education is also critical in shedding light on the condition of farmworkers who do not now have what anyone would call decent housing to live in while they do this essential work for the rest of us. This will be important to motivate consumers to care, which can in turn motivate policy makers to remove barriers or increase funding for decent housing. It can also motivate other players in the supply chain to reward the farms who do commit to providing safe, decent housing as with the Milk with Dignity program.

6. **Tailor Solutions to Farm Size and Farmworker Type.** The consultant recommends focusing on separate approaches for distinct types of farm and farm worker, including:

   » **Dairy farms with Sales of at least $500,000 Who Provide Worker Housing On-farm.** These moderate and larger-sized dairy farms with on-farm housing represent less than 3% of all farms in the state by number, but provide as much as two-thirds of all on-farm worker housing. This group of farms houses nearly all of the migrant workers who lack governmental authorization to work in this country. As these farms provide the majority of housing to farmworkers, they also have the greatest concentration of sub-standard units. Though there are individual dairy farms of this size throughout the state, three quarters of these farms are concentrated in Addison, Franklin, Chittenden, and Orleans Counties. The vast majority of these farms are members of one of the two large milk coops, DFA and Agrimark. Working with and through those organizations may be key to scaling solutions to this group.
» **Field Crop Farms and Orchards Who Regularly Participate in the H-2A Program.** These farms that contract for migrant farmworkers seasonally represent a relatively small number of farms, still they do house several hundred farm workers each year. Their H-2A contracts obligate them to provide decent housing for those seasonal workers. This group of readily identifiable farms includes some whose housing, according to those closely associated with the program in Vermont, does not meet those standards.

» **All Other Farms Who Provide Worker Housing On-Farm.** A different set of approaches should be applied to the diverse number of small farms that do or may wish to provide housing for one or two workers. This group includes both dairy and non-dairy farms and includes virtually all of the small and mid-sized farming operations in the state. It will generally be the hardest group to reach and have the least capacity to afford the cost of the housing. Working with organizations like VHCB’s Farm and Forest Viability Program, the Vermont Land Trust, and NOFA Vermont, represent several key partners who work with this group of farms.

The consultant sees two other sub-groups of farm workers for whom housing needs exist and could be addressed with programs directed at them specifically.

» **Farm Workers as a Subset of the Population in Need of Affordable Housing Generally.** The consultant sees low wages as a root cause for the challenges farmworkers have in securing safe, decent and affordable housing. In this, they share the dilemma of low-wage workers in Vermont generally. As discussed earlier in this report, the RD 512/514 Program, is eligible to individuals and families who earn or have retired from earning a substantial portion of their income as farm workers. USDA is also piloting projects that mix farm and non-farm occupants. In areas with a concentration of agricultural activity, this expansive definition of eligibility opens the net to a large number of low-wage workers and retirees and should be explored as an additional source of funding to address rural affordable housing needs. The program gives funding priority to projects in Opportunity Zones. Opportunity zones exist in several of Vermont’s counties with large numbers of farm workers: Addison County (Ferrisburg), Franklin County (St. Albans), Orleans County (Newport), and Chittenden County (Burlington and Winooski).

» **Farm Operators.** The largest single group of farm workers in Vermont is that of the operators themselves. A relatively large portion of these nearly 7,000 households generates less than $25,000 in net farm income annually. Farm operators as a class represent a not insignificant share of Vermont’s working poor homeowners. The role of the coordinating entity (see Recommendation #1) should include doing research, advocacy and outreach on behalf of farm operators to assist them in making improvements to their own housing and providing for new housing in support of generational transfers. The consultant sees housing as a way of sustaining healthy, viable farms not only for the hired farmworkers but for those who have the principal responsibility for keeping Vermont’s working lands working.
7. **Segment Solutions by Range of Cost.** In seeking and creating solutions to address examples of farmworker housing inadequacy, the consultant recommends thinking of the problems as falling into four categories based on the cost to resolve the problem:

- **Relatively Low Cost Improvements (< $5,000).** Many of the problems that define substandard farmworker housing can be addressed with a relatively small capital expense. Improvements, like functioning smoke alarms, adequate trash receptacles, painting, individual appliances and pieces of furniture, refreshing bedrooms with turnover, and the like do not cost a great deal of money and go a long way to providing housing that is safer, more comfortable, and expresses respect for the worker. The study identified the National Farm Worker Education Program (NFWEP) that the U.S. Department of Labor administers through regional grantees (Pathstone Corporation in Rochester, NY serves Vermont). The NFWEP includes a number of housing grant programs including a mini grant program for housing improvements up to $2,000 and loans up to $10,000. Funding for these two programs are currently exhausted but will be up for renewal in the future. The consultant recommends that the action planning process look closely at these two options for addressing small-scale improvements even if it needs to be state funded.

  *Projected utilization over five years: 150-200 farms at the <$5,000 range, with a loan capitalization need of less than $1 million.*

- **Moderate Rehab ($5,000- $50,000).** Some issues fall into a category that include improvements like weatherization, improved HVAC systems, noise insulation, long term upkeep like new roofs, and small scale expansions to reduce overcrowding. Seeking new avenues of funding for moderate rehab loans represents a key task for the Action Plan. Two directions to explore include: the capacity of the new USDA Administration to pilot approaches to moderate rehab loans using their Farm Labor Housing Direct Loans and Grants program and exploring ways to utilize federal COVID-19 recovery funds to improve the health and safety conditions of on-farm workers. Also, given the high levels of indebtedness on many farms, there will also need to be dialogue with existing farm lenders like VEDA and Yankee Farm Credit to allow for this additional debt more readily. The study reviews a program in New York State funded a revolving loan fund for this purpose. The loans are simple to get and are utilized regularly in that state. Though the program sets a $100,000 cap and a ten-year term on the borrowing amount, the majority of loans are in the $75,000 to $100,000 range. Some level of loan guarantee may emerge as a necessary element of moderate rehab as well as new and replacement housing solutions.

  *Projected utilization over five years: 100-150 farms with total borrowing of $3.5-5.0 million based on terms, subsidies, etc.*

- **New and Replacement Units ($50,000 and over).** To address the need for replacement of those units that fail to meet even the minimum health and safety standards, or to supply new on-farm worker-housing units represents a major investment on the part of the farm. To construct this housing will require long-term borrowing instruments; it will
need to be financeable to farms with lots of debt and limited cash flows; it will need to meet challenges of zoning and development covenants on preserved farms; and its benefits to farm health, safety and productivity will need to be fully understood in order to happen. The Action Planning process should explore modifications to and pilot projects within existing funding sources and advocate for dedicated funding to increase the availability of low cost, easy to use financing to address these larger scale improvements needed.

Projected utilization over five years: 75-100 farms with total borrowing of $7.5-$10 million based on terms, subsidies, etc.

8. **Combine Enforcement with Incentives.** The consultant does not believe that either simply encouraging farms to make these investments or threatening them if they don’t will move the dial much in the right direction. Financial incentives are needed to begin turning the flywheel. These can come in the form of supporting the expansion of the Milk with Dignity program to other Buyers; it can also come in the form of grants, cost sharing and low interest loans made directly to farmers to address this need. The consultant recommends developing all of these as elements of the Action Planning process.

9. **Utilize Existing Programmatic Models.** The study identified a number of programs or pieces of legislation that offer important models to consider embracing, learning from, piloting, or expanding.

10. **Provide Funding for Pilot Projects and Technical Assistance.** There are a range of innovative approaches that improvement in farm worker housing could take. Perhaps the best way to develop those which can be scaled to multiple farms in Vermont is to look for pilot funding to explore specific strategies based on the needs and the challenges identified. One key area of support the coordinating entity will need is the housing technical assistance capacity to design programs with work with and for farmers. USDA’s Rural Development, the Federal Legislative delegation, subsequent COVID-recovery funding, VHCB, and the Vermont State legislature are all potential sources of this support.

11. **Involve Existing Nonprofit Housing Entities.** The consultant recommends engaging with the state’s nonprofit housing entities to serve as an implementation resource. The state is blessed with a number of established non-profit housing organizations whose mission is to address the housing needs of the state’s low and moderate income residents.

12. **Think Creatively.** Perhaps the housing need most widely cited in this study was the need for a quiet sleeping space separate from the cooking and socializing area of the farmworker’s residence. This is especially important in dairy farming when worker shifts overlap throughout the day; at the larger farms someone is sleeping at any given hour of the day. Disturbed sleep from the noise and smells of cooking and socializing is endemic to the workplace, with impacts on productivity, health and safety. At the same time, many of the zoning requirements and conservation restrictions that represent important challenges place limits on “dwelling units.” It is worth exploring whether separate modular sleeping/bathroom quarters which utilize existing cooking and socializing space could address the need for sleeping quarters
specifically designed to their function at a significantly lower per worker cost, while at the same time skirting some of the zoning and conservation restriction challenges. This is just one example of consciously looking at creative solutions that reduce the barriers and lower the cost of providing the farm workers with housing that is safe and decent.
APPENDIX A: FARMWORKER HOUSING SURVEY AND SUMMARY RESPONSES

1. How many farm workers did you hire in 2020, both seasonally and year round? (N=59)

<table>
<thead>
<tr>
<th>Hired Workers</th>
<th>Year-Round</th>
<th>Seasonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>1 or 2</td>
<td>13</td>
<td>16</td>
</tr>
<tr>
<td>3 or 4</td>
<td>11</td>
<td>5</td>
</tr>
<tr>
<td>5 to 9</td>
<td>13</td>
<td>10</td>
</tr>
<tr>
<td>10 or more</td>
<td>10</td>
<td>4</td>
</tr>
<tr>
<td>Median/Farm</td>
<td>6</td>
<td>4</td>
</tr>
<tr>
<td>Total Employed</td>
<td>369</td>
<td>258</td>
</tr>
</tbody>
</table>

2. For how many of these farm workers, did you provide housing in 2020? (N=60)

<table>
<thead>
<tr>
<th>Housed Workers</th>
<th>On-Farm</th>
<th>Off-Farm</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>14</td>
<td>37</td>
</tr>
<tr>
<td>1 or 2</td>
<td>17</td>
<td>6</td>
</tr>
<tr>
<td>3 or 4</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>5 to 9</td>
<td>8</td>
<td>2</td>
</tr>
<tr>
<td>10 or more</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>Median/Farm</td>
<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Total Employed</td>
<td>291</td>
<td>32</td>
</tr>
</tbody>
</table>

3. How many of these housed farm workers had families living with them? (N=59)

<table>
<thead>
<tr>
<th>On-Farm Families</th>
<th>One Family Member</th>
<th>2 or More Family Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>42</td>
<td>45</td>
</tr>
<tr>
<td>1 or 2</td>
<td>18</td>
<td>14</td>
</tr>
<tr>
<td>3 or more</td>
<td>2</td>
<td>3</td>
</tr>
</tbody>
</table>

Percent of Units with Unrelated Individuals 80%
Percent of Units with 1 or More Family Members 20%

4. If you do not have enough housing or your housing is inadequate, how many total farm workers would you provide housing for if you had adequate housing? (N=57)

<table>
<thead>
<tr>
<th>Would House More Workers</th>
<th>Year-Round</th>
<th>Seasonal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>24</td>
<td>42%</td>
</tr>
<tr>
<td>No</td>
<td>33</td>
<td>58%</td>
</tr>
<tr>
<td># Added workers housed if possible</td>
<td>87</td>
<td>122</td>
</tr>
</tbody>
</table>
5. If you could make whatever improvements and additional housing you felt were needed for the housing that you do provide, what would that include? This could include improvements or additions to on-farm housing occupied by the principal operators and family members that is needed to support the sustainability of farm operations.

6. How much money would you estimate would be needed to make improvements to your current housing? (N=53)

<table>
<thead>
<tr>
<th>Purpose</th>
<th>&lt;$5,000</th>
<th>$5,000-$9,999</th>
<th>$10,000-$34,999</th>
<th>$35,000-$99,000</th>
<th>$100,000 or more</th>
</tr>
</thead>
<tbody>
<tr>
<td>For housing improvements</td>
<td>6</td>
<td>6</td>
<td>14</td>
<td>9</td>
<td>4</td>
</tr>
<tr>
<td>For new housing</td>
<td>0</td>
<td>1</td>
<td>5</td>
<td>18</td>
<td>20</td>
</tr>
</tbody>
</table>

7. Would you make those improvements (or add more housing if needed) if you had: (N=65)

<table>
<thead>
<tr>
<th>Incentive</th>
<th>Yes</th>
<th>No</th>
<th>Maybe</th>
<th>N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to low interest or no interest loans</td>
<td>27</td>
<td>4</td>
<td>22</td>
<td>7</td>
</tr>
<tr>
<td>If you could obtain grants to cover a portion of the cost of those improvements</td>
<td>55</td>
<td>4</td>
<td>1</td>
<td>5</td>
</tr>
<tr>
<td>If you had the technical support to help you design, permit, finance, and/or make the needed improvements</td>
<td>34</td>
<td>10</td>
<td>14</td>
<td>6</td>
</tr>
<tr>
<td>Other</td>
<td>5</td>
<td>3</td>
<td>2</td>
<td>11</td>
</tr>
</tbody>
</table>
8. If you did make those improvements (or added new housing), which of these potential benefits would be most important to you? *Rank from most Important to Least important (1= Most Important) (N=62)*

<table>
<thead>
<tr>
<th>Rank of Importance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attracting new workers and retaining them longer</td>
<td>30</td>
<td>10</td>
<td>10</td>
<td>7</td>
<td>0</td>
<td>5</td>
<td>4.8</td>
</tr>
<tr>
<td>Greater worker satisfaction</td>
<td>17</td>
<td>21</td>
<td>11</td>
<td>5</td>
<td>6</td>
<td>3</td>
<td>4.5</td>
</tr>
<tr>
<td>Improvements in productivity</td>
<td>7</td>
<td>14</td>
<td>18</td>
<td>15</td>
<td>5</td>
<td>3</td>
<td>3.9</td>
</tr>
<tr>
<td>Reduced utility costs</td>
<td>2</td>
<td>9</td>
<td>14</td>
<td>10</td>
<td>24</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Fewer shifts lost to illness or transportation challenges</td>
<td>2</td>
<td>8</td>
<td>9</td>
<td>20</td>
<td>22</td>
<td>2</td>
<td>3.1</td>
</tr>
<tr>
<td>Other</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
<td>29</td>
<td>1.7</td>
</tr>
</tbody>
</table>

9. If grants/loans were available for developing farm worker housing, and if they were required to be repaid if the housing no longer served as farm worker housing, would that negatively impact your willingness to utilize those resources? (N=65)

<table>
<thead>
<tr>
<th>Negative Impact of Use Covenants</th>
<th>Number of Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>28</td>
</tr>
<tr>
<td>No</td>
<td>34</td>
</tr>
<tr>
<td>Not applicable</td>
<td>3</td>
</tr>
</tbody>
</table>
10. What are your most significant barriers towards making improvements to your existing farm worker housing or constructing new housing? Rank from most Important to Least important (1= Most Important) (N=62)

<table>
<thead>
<tr>
<th>Rank of Importance</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>We lack adequate access to the grants and/or financing needed</td>
<td>27</td>
<td>16</td>
<td>12</td>
<td>2</td>
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<td>We lack technical support to help us get through designing, permitting, financing, and constructing the housing we need</td>
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<td>We lack the time to make this a priority</td>
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11. Is there anything else you would like to communicate regarding your current farmworker housing situation?

- “All the housing in this county is pretty sub-standard, especially for low income workers.”
- “Attracting and retaining skilled and reliable workers has been limited by only being able to offer seasonal primitive housing. Our current farmworker housing has only been suitable for young, single, transient or seasonal workers.”
- “Building new FLH (or any other infrastructure for that matter) on conserved land with the current rules in place (e.g., OPAV) can only ever be a losing investment. This is a major deterrent for us. If sufficient grants, low or zero interest financing, or a combination thereof were available to help lessen the gap between up front investment and the value of that infrastructure given OPAV, this would help us feel more comfortable expanding operations, building new FLH and creating new jobs.”
- “Good affordable housing would be a labor game changer for us.”
- “Great need to augment current housing and add more housing.”
“Having interns/workers live with us. We could use any support in making this work better.”

“Housing and housing development are big challenges in the state, regardless of farming.”

“Cost of living is too high for most residents to afford to live off farm worker pay, even if that increases over the next few years. Housing costs are 30-50% of low income earnings, depending on the community. Clearly new thinking is needed even beyond farm housing.”

“Housing seems to be a big issue. Having housing on the farm should insure that the worker would show up every day. No transportation issue, no lack of contact issue, no oversleeping issue.”

“I truly wish on-farm housing wasn’t needed for ag workers. It is an added expense other industries don’t have to cover. Tying an individual’s housing security to their job is problematic for both employers and employees. Unfortunately, affordable housing is almost non-existent in most rural areas.”

“In regards to the last question, we recently built an entire new dairy complex in 2016-17. Our balance sheet is in a very leveraged situation at the current time. We have to be very careful what we are borrowing additional capital for.”

“It is non-existent for us, but we know that none of our employees can afford to live in our community on the salaries we are able to pay.”

“Land trust restrictions are not sensible where it comes to normal family expansion or farm worker requirements. Do not encourage growth to support long term sustainability.”

“Local/municipal zoning and regulations can be prohibitive from a cost and/or regulatory perspective.”

“Low milk prices do not allow us to make the needed improvements.”

“My worker’s would like a private space. Sound and light proof. Different shifts and others keep them from getting good rest.”

“[We are] negotiating on a property located across the street.”

“Our current housing is adequate, but a bit crowded. With the pandemic it would be better to have less shared space. We have done our best to make upgrades to the existing space, i.e. an additional bathroom, additional exit, renovated living area, but we can’t actually increase the living space of the house any further.”

“Our farm is small; 100 cows. We manage it fine. We don’t look for handouts and milk our own cows. Many farmers can’t say that.”
“Our farm is still in the planning stages, however, housing is an integral element of the business plan. There are not enough affordable rental units in our area to house our needed staff. Without housing, our business plan is not possible.”

“People don’t realize what this all costs. We supply housing electricity and oil. Then find out the price of milk has dropped.”

“Seasonal worker housing is a long term goal of this farm. Another possibility is central housing (southern VT for example) and several small farms can pool their needs to share 40 hr work weeks if they can’t hire full time workers.”

“The ceiling height requirement is too high to use campers by 2 or 3 inches. If this changes, we could use them. No building permits. If you go out of farming, you give them back. Quick to get, quick to get rid of.”

“The house is extremely old and other members of the business aren’t willing to make the changes to better the farm worker housing situation.”

“This is an all-around hard thing to keep and maintain. My workers live in a 1972 single wide trailer. It’s sooo hot in the summer and very cold and expensive to keep them warm in the winter. It would be great to have grant money to bring in a newer, more efficient home for them. One with no mice and leaks in the roof. And maybe some heat at both ends of the home. It’s just so old it’s not worth improving its current status.”

“We are constantly having employees want to work for us but they cannot take the job because of lack of local affordable housing. So If we as a farm cannot provide housing at least if the state could provide affordable housing near us, it could greatly improve our retention rates.”

“We could really use investment.”

“We don’t need any changes at this time, we updated our housing situation in 2017.”

“We have farm conservation restrictions, but have planned for those. What we need to do is actually build our own house on an adjacent parcel and turn the housing that we built in our silos into the expanded labor housing. The silo house needs about a $40,000 roof repair to truly be waterproof and adequate for labor housing. After that is repaired there is some internal water damage to repair as well. We could use some investigative engineers to figure out exactly where the water is coming in.”

“We have housing we have used for H-2A for my 20 plus years here. For us, it would be updating an older structure, much of which we have already invested in. Additional housing for year round folks, we would prefer to have on different property to avoid making the farm too asset heavy.”
“We have made improvements to our farmworker housing and they have allowed us to attract and maintain high-quality, dedicated employees who are helping move our farm forward.”

“We have to also train people on cleaning and caring for said housing. We have had so many issues with migrant labor literally ruining our houses. We’ve had many septic issues and issues with bed bugs and cockroaches. All of these issues add to our costs and it is a lot!”

“We might retire soon and move to the rental house to make way for a young farmer. We have to firm up our exit plan before we can decide what to do about the rental house.”

“We need information on access to help now.”

“We sincerely want to improve worker housing but we can’t afford to. We need financial assistance to make this happen.”

“Zoning restrictions on multi-unit housing prevents on-farm housing.”
## APPENDIX B: INDIVIDUALS CONTACTED FOR THIS STUDY

### Alphabetical by Organization

<table>
<thead>
<tr>
<th>Organization</th>
<th>Contact Information</th>
</tr>
</thead>
</table>
| Cabot Creamery                                          | Jed Davis  
**Director of Sustainability**                      | Rob Weiner  
**Executive Director**                                  |
| Champlain Orchards                                      | Mary Mitiguy  
**Human Resource Manager**  
Bill Suhr  
**Owner**                          | John Roberts  
**Executive Director**                                  |
| Farm Credit East                                        | Mike Haycook  
**VP Branch Manager**                                     | Elan Gabel-Richards  
**Mano en Mano**                                     |
| Jasper Hill Farm                                        | Mateo Kehler  
**Owner**                                              | Marita Carnedo  
**Migrant Justice**                                     |
| Milk with Dignity Standards Council                    | Tom Fritzsche  
**Director**                                                 | Arnon Adler  
**Low Income Housing Tax Credit Program Director**       |
| NOFA-VT                                                 | Jen Miller  
**Farm Services Director**                                   | Martin Jarvis  
**Program Analyst**                                      |
| Pathstone, Rochester, NY                                | John Wiltse  
**Senior Operations Director**                              | Tim Fishburne  
**Director of Sales**                                     |
| Rental Housing Safety and Habitation Committee (VHFA)   | Sarah Carpenter  
**Executive Director**                                     | Mirna Reyes-Bible  
**Finance and Loan Analyst**                                |
|                                                         |                                                          | 514/ 516 Farmworker Housing Program                        |
| United States Department of Agriculture                |                                                          |                                                          |
## APPENDIX B: INDIVIDUALS CONTACTED FOR THIS STUDY

Alphabetical by Organization

<table>
<thead>
<tr>
<th>USDA Rural Development</th>
<th>Office of U.S. Senator Bernard Sanders</th>
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<tbody>
<tr>
<td>John Michael Muise</td>
<td>Erica Campbell</td>
</tr>
<tr>
<td>Area Director</td>
<td>Policy Advisor and Outreach Representative</td>
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<tr>
<th>University of Vermont College of Agriculture and Life Sciences</th>
<th>UVM Extension Migrant Education Program</th>
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<tbody>
<tr>
<td>Dan Baker</td>
<td>Kelly Dolan</td>
</tr>
<tr>
<td>Associate Professor</td>
<td>Migrant Education Program Coordinator</td>
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<tr>
<th>Vermont Agency of Agriculture, Food and Markets</th>
<th>Vermont Community Foundation</th>
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<tbody>
<tr>
<td>Alyson Eastman</td>
<td>Sarah Waring</td>
</tr>
<tr>
<td>Deputy Secretary</td>
<td>Vice President for Grants and Community Development</td>
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<tr>
<th>Vermont Dairy Farm</th>
<th>Vermont Department of Taxes</th>
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<tbody>
<tr>
<td>Clement Gervais</td>
<td>Elizabeth Hunt</td>
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<tr>
<td>Owner</td>
<td>Current Use Program Manager</td>
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<tr>
<th>Vermont Energy Investment Corporation</th>
<th>Vermont Housing &amp; Conservation Board</th>
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<tbody>
<tr>
<td>Peter Schneider</td>
<td>Liz Gleason</td>
</tr>
<tr>
<td>Senior Consultant</td>
<td>Vermont Farm &amp; Forest Viability Program Director</td>
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<tr>
<td></td>
<td>Jennifer Hollar</td>
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<tr>
<td></td>
<td>Director of Policy and Special Projects</td>
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<td></td>
<td>Ariane Kissam</td>
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<td></td>
<td>Homeownership Programs Manager</td>
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<tr>
<td></td>
<td>Mariah Noth</td>
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<tr>
<td></td>
<td>Vermont Farm &amp; Forest Viability Program Outreach and Communications Coordinator</td>
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<tr>
<td></td>
<td>Craig Peltier</td>
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<td></td>
<td>Director of Asset Management &amp; Project Design</td>
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<td></td>
<td>Gus Seelig</td>
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<td></td>
<td>Executive Director</td>
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<tr>
<th>Vermont Housing Finance Agency</th>
<th>Vermont Land Trust</th>
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<tbody>
<tr>
<td>Seth Leonard</td>
<td>Nick Richardson</td>
</tr>
<tr>
<td>Director of Community Programs</td>
<td>President</td>
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<tr>
<td></td>
<td>Tyler Miller</td>
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<tr>
<th>Yankee Farm Credit</th>
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<tbody>
<tr>
<td>Dave Lane</td>
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<tr>
<td>Senior Vice President</td>
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APPENDIX C: APPLICABLE FARM WORKER HOUSING STANDARDS IN VERMONT

C-1. VERMONT’S MINIMUM RENTAL HOUSING STANDARDS

from Vermont’s Rental Housing Health Code § 3003(a) and 3 V.S.A. § 801(b) (11).

SANITATION FACILITIES

» Kitchen
   Every dwelling unit must contain:
   • A kitchen sink
   • Space to store, prepare and serve food in a sanitary manner

» Bathroom
   Every dwelling unit must contain:
   • A flush toilet
   • A sink
   • A bathtub or shower

» Water supply
   • Every dwelling unit must be connected to a supply of drinkable water of sufficient quantity and pressure to meet the ordinary needs of the occupant(s)
   • Every kitchen sink, bathroom sink, shower, and tub must be capable of safely providing hot water

» Sewage disposal
   Every dwelling unit must be connected to either:
   • A public sewage system; or
   • A properly operating septic system (“subsurface wastewater disposal system”)

» Trash disposal
   The owner of a dwelling must:
   • Provide and maintain appropriate trash receptacles
   • Assure that arrangements are made for removal
   • Keep common spaces in a sanitary condition and free of garbage

» Insects and rodents
   The owner of a dwelling must:
   • Maintain all common spaces free from rodent and insect infestation
   • Be responsible for exterminating rodent and insect infestations:
     In all common spaces
     When the infestation exists in two or more dwelling units
BUILDING SYSTEMS

» Heating
  • Every dwelling unit must have heating facilities capable of maintaining a room temperature of 65°F (18°C) in all habitable rooms when the outside temperature is less than 55°F
  • All fuel-burning appliances must be inspected at least once every two years

» Ventilation
  • Every habitable room in a dwelling unit must have ventilation to the outdoors, including at least one window or door that can be opened to the outdoors without tools
  • Every bathroom must have ventilation to the outdoors
  • All fuel-burning appliances must be vented to the outside of the building

» Lighting/electricity
  • Every habitable room in a dwelling unit must contain:
    At least two duplex electrical outlets; or
    One duplex electrical outlet and a light fixture
  • Every bathroom and entrance must be adequately lit

STRUCTURAL ELEMENTS

Every dwelling unit must be:

» Weathertight — Constructed to prevent air infiltration and resist weather such as rain and snow
» Watertight — Constructed to be substantially impermeable to the passage of water
» Rodent proof — Constructed and maintained to prevent the movement of rodents
» In good repair
» Dry/mold free — As described in the Rental Housing Health Code
» Compliant with applicable building codes

LEAD PAINT

Every owner of a pre-1978 rental unit in Vermont must:

» Ensure Essential Maintenance Practices (“EMPs”) are performed by a certified EMP practitioner
» File an EMP Compliance Statement every year with:
  • The Vermont Department of Health
  • The owner’s insurance carrier
  • The tenant
LIFE SAFETY

Every dwelling unit must contain:

» Working smoke alarms in all sleeping areas and in the immediate vicinity outside of each separate sleeping area:
  • With battery back-up
  • Directly wired to the building electrical service
  • If installed after June 15, 2009, smoke alarms must be the photo-electric only type

» Working carbon monoxide alarms:
  • With battery back-up
  • Directly wired to the building electrical service

» All exits and means of escape from dwelling units must be:
  • Of sufficient size to allow for escape in an emergency
  • Must be kept clear and unobstructed
  • Not used for storage, trash or recycling containers, or appliances

» Access to windows and doors must not be blocked by furniture or other obstructions

MOBILE HOMES

» Mobile home — Means the structure or type of manufactured home that is designed for long-term and continuous residential occupancy.
  • A mobile home may be owner occupied or rented.
  • The rental housing health code applies to all rented mobile homes regardless of whether the home is sited on a mobile home lot or in a mobile home park.
  • Town health officers can investigate a complaint regarding a rented mobile home.
  • The rental housing health code requires every mobile home lot to have a safe connection to electrical services, water supply, and sewage disposal.
  • Town health officers can investigate a complaint regarding the connection to electrical service, water supply and sewage disposal for a mobile home lot.

C-2. From HOUSING AND EMPLOYMENT RIGHTS HANDBOOK FOR VERMONT DAIRY WORKERS
Prepared by the Vermont Law School

Your landlord MUST make sure your housing (including the roof, floor, walls, foundation, ceilings, doors, windows, stairways, chimneys, and plumbing) is:

» Weather-tight—built to resist weather and prevent air, rain, and snow from coming in.
» Water-tight—built to prevent water from coming in.
» Rodent proof—built and maintained so that rodents like rats and mice cannot enter your home. For example, your landlord must make sure that there are no holes in your walls or openings in your foundation or cellar where rodents could enter.
» **Dry**—continually maintained so that there is no pooled water or moisture indoors to prevent mold growth.

» **In good repair**—continually maintained so that all of the above requirements are satisfied.

## HOUSING ESSENTIALS

**Q: Does my housing need to have a kitchen?**

A: In general, your housing MUST have a kitchen, including a sink with hot and cold water that is safe to drink, and a sanitary space to store, cook, and eat food.

**Q: Does my housing need to have a bathroom?**

A: In general, every rental unit MUST have bathroom facilities that are either in your unit or shared with no more than one other unit in your same building. You should not have to share your residential bathroom facilities with people who work on the farm during the day but who do not live there, even if your housing and bathroom are attached to the barn or milking parlor where other people work. If there is a bathroom in your unit, it must be separate from the living area and must provide privacy and ventilation to the outdoors. Additionally, it must have a flush toilet, sink, and bathtub or shower with hot and cold water.

*Note: There are some limited circumstances when a landlord is not required to provide a kitchen. Note: There are some limited circumstances when you may be required to share your bathroom facilities with people living in more than one other room or unit in your same building.*

**Q: What are my rights to water?**

A: You ALWAYS have a right to clean water in your home. Your landlord MUST make sure your water:

» Is both hot and cold

» Has good pressure

» Is clean and drinkable, and

» Is enough to use for showering or bathing, washing clothes and dishes, and any other ordinary needs that require water

If your water is dirty or you have too little water your landlord MUST provide you with an alternative source of water for drinking and sanitation—for example, water jugs or a water purification system.

**Q: Do bathrooms and kitchens need waterproof floors and counters?**

A: Yes, bathrooms and kitchens MUST have floors and counters with a waterproof covering to prevent moisture and mold growth.

**Q: What are my rights to heat?**

A: You ALWAYS have a right to be able to sufficiently heat your home. Your landlord is not required to pay for heat, but your home must have heaters that you can use and that are capable of keeping all rooms above 65 degrees Fahrenheit (18 degrees Celsius). If your landlord does agree to pay for heat, then he or she must make it available whenever the outdoor temperature drops below 55 degrees Fahrenheit (13 degrees Celsius).
Q: What are my rights to clean, breathable air?
A: Every room used for living, sleeping, cooking, or eating MUST have at least one window or door in good repair that can be opened to let in fresh air. Additionally, every bathroom MUST be ventilated with access to the outdoors either by window, door, or vent. Your heating source MUST also be vented to the outdoors.

Q: What are my rights to lighting and electricity?
A: Your landlord is not required to pay for electrical utilities, but must ensure that you can access electricity and light by providing electrical outlets and/or electric light fixtures in kitchens, bathrooms, and rooms used for living and sleeping. Additionally, all entrances and common areas must have enough light to allow you to enter and exit safely.

HOUSING SAFETY

Q: What kind of safety devices should there be in my housing?
A: Your housing MUST have all of the following:
   » A fire extinguisher
   » One working smoke alarm in every bedroom or area where a person regularly sleeps
   » One working carbon monoxide detector near each sleeping area
   » At least one window in all rooms where a person regularly sleeps that is large enough so people can climb out

Q: What should I do if I have a problem with my housing?
A: If you have a housing issue and want it addressed, you should tell your landlord as soon as possible. After you tell your landlord about the problem, he or she MUST correct the issue in a reasonable amount of time.

Q: When can my landlord enter my home?
A: Your landlord may enter your home in three circumstances:
   » If you consent, which you should do unless you have a good reason not to.
   » If he or she gives you at least 48 hours advance notice, the visit occurs between 9:00 A.M. and 9:00 P.M., and the purpose of the visit is to inspect the premises, make repairs or improvements, supply agreed-upon services, or show the unit to new renters or buyers.
   » If he or she has a reasonable belief that there is imminent danger to a person or to property.

Q: Do I have a right to privacy from the police or other law enforcement officers?
A: Yes, in general, you have a right to deny law enforcement entry to your housing UNLESS:
   » They have a valid warrant or
   » Someone living in the home gives them permission to enter

Note: If you have questions, you can speak with the police through your door. Your landlord CANNOT give the police permission to enter your housing.
Q: What are my rights if my landlord wants me to move out?
A: Your landlord can NEVER deny you access to your housing or personal belongings, or turn off your utilities like water and heat. If your landlord wants you to move out he or she MUST provide you with advance notice in writing before he or she can force you to move out.
If your farm employer provides housing in exchange for your labor, read section A below to learn how much notice you must receive before you have to move out. If you have an agreement to pay rent for your housing, read section B below to learn how much notice your landlord must give you before you have to move out.

This section applies if you get Section A housing because of your work.

HOUSING PROVIDED IN EXCHANGE FOR LABOR

Q: My farm employer provides housing in exchange for my work. If he or she fires me, do I have to move out immediately?
A: No, you can’t be forced to leave right away. A farm employer who provides housing in exchange for your labor may force you to move out when your employment ends ONLY IF he or she follows the two steps listed below.

1. Advance notice and court hearing: Your farm employer will have a law enforcement officer give you written notice from the court telling you that your landlord wants you to move out. A court will schedule a hearing 10 days or more from the date you receive the notice.
2. Proof of hardship: At the hearing, if your farm employer can prove that he or she is suffering an actual hardship because he or she cannot use your housing for a new employee, the court will give you between five and thirty days to move out. If your farm employer fails to prove actual hardship, he or she must start a longer process in the court to force you out of your housing.

HOUSING PROVIDED IN EXCHANGE FOR RENT

Q: I have an oral or written agreement to pay rent for my housing. Can my landlord remove my belongings from my home or force me to move out immediately without giving me any advance warning?
A: No. If you pay rent, including if rent is deducted from your wages, your landlord must notify you a certain number of days before you have to move out. The notice must be in writing, and must be hand-delivered or mailed. The amount of notice your landlord must give you depends on why he or she is asking you to move out:

» If your landlord wants you to move out because you did not pay rent when it was due, he or she must give you at least 14 days’ notice in writing. If you pay the amount of rent due before the 14 days pass, then you do not have to move out.
» If your landlord wants you to move out because you violated one of the terms of the rental agreement (written or oral), he or she must give you at least 30 days’ written notice before you have to move out.
» If your landlord wants you to move out through no fault of your own, the amount of written notice he or she must give you depends on whether you have a written rental agreement and how long you have lived in the rental unit.
C-3. H-2A MIGRANT WORKER HOUSING CHECKLIST

Site
1. Adequately drained
2. Site free from depressions and water nuisance
3. 200 feet from collections of inactive water
4. 500 feet from livestock feeding or quartering area
5. Grounds and open areas maintained in sanitary condition

Heat—General Structure (May 15–September 1)
1. Adequate heating equipment if used during cold weather.
   Note: Any time the outside temperature falls below 50° F., heaters must be provided
2. Heating equipment must be capable of heating the area to 65° F.

Lighting—General Structure
1. One ceiling fixture and one wall outlet in rooms and service rooms
2. 30 foot candles provided 30 inches from floor in living quarters and kitchen
3. 20 foot candles provided for toilet and service rooms

Water Supply—General Structure
1. Within 100 feet from shelter
2. Water supply equal to 35 gallons per person per day
3. No common drinking cups
4. Drinking fountains provided (ratio of 1 fountain to 100 occupants)

Shelter
1. Protects against elements
2. 7-foot ceiling minimum
3. Floors made of wood, concrete, or asphalt
4. Floors smooth, tight, and in good repair
5. Wooden floors at least 1 foot above ground level
6. Window area equal to 1/10 of floor space
7. One-half of windows will open for ventilation
8. Windows unbroken
9. Windows and door screened
10. Screen door has self-closing device
11. 100 square feet per person for cooking, living, and sleeping

Sleeping Quarters
1. 50 square feet per person for sleeping only
2. Beds, cots, and storage facilities provided for each occupant
3. Beds, cots, or bunks 3 feet apart
4. Beds, cots, or bunks 12 inches from floor
5. 36 inches space laterally and end-to-end between beds/cots
6. No triple bunks used
Toilet Facilities adequate for capacity of camp (see .142(d)(5))
1. One unit per 15 people
2. Urinal trough provided at rate of 2 linear feet per 25 men
3. Accessible without passing through sleeping quarters
4. Properly ventilated or six-foot square window
5. Outside openings screened
6. Located within 200 feet from shelter
7. Privies at least 100 feet from shelter
8. Facilities provided for each sex with clear identification
9. Facilities for each sex separated by solid walls or partitions extending from floor to ceiling
10. Toilet rooms lighted
11. Adequate supply of toilet paper
12. Privies and toilet rooms kept in sanitary condition
13. Toilet rooms and privies must be cleaned daily

Washing and Bathing Facilities
1. Hand wash basin per family or per 6 persons
2. Shower head per every 10 persons
3. Laundry tub per every 30 persons
4. Slop sink in each laundry building must be provided
5. Floor drain in showers
6. Shower floor impervious to moisture
7. Walls and partitions of waterproof material up to splash line
8. Adequate supply of hot and cold running water
9. Facilities for heating water for bath and laundry
10. Service building equipped with heating facilities to maintain a temperature of 70° F. during cold weather
11. Facilities for drying clothes
12. Service buildings clean

Kitchens
1. Food free from vermin, rodents, and flies
2. Food preparation areas maintained in a clean and sanitary manner
3. Food free from spoilage
4. Sanitary facilities for storing and preparing food
5. Kitchen facility provided with operable stove with at least 1 burner per 5 persons, in no event less than 2 burners
6. Kitchen provided with an operable refrigerator with .75 cubic feet per person minimum
7. Kitchen provided with a table
8. Kitchen provided with a sink with hot and cold running water
9. Kitchen surfaces accessible for cleaning, free from open crevices, nontoxic, and resistant to corrosion
10. No poisonous or toxic materials stored with food or in food preparation area
11. If single-service eating and drinking utensils are used, they are maintained, stored, and handled in order to prevent contamination
12. Pots and pans maintained in a clean and sanitary condition
13. Cloths used in kitchen must be clean
14. Proper storage area provided for kitchen utensils
15. Food supplies safe for human consumption
16. Potentially hazardous food maintained at safe temperatures—45° F. or below
17. Frozen food treated properly in order to avoid contamination
18. Canned food treated properly in order to avoid contamination
19. No live pets present in room or area in which food is prepared or served
20. Food preparation person meets all sanitary requirements of position (clean garments and hands and no smoking)
21. No person with communicable diseases serving or preparing food
22. Water and sewage approved by local sanitarian
23. Equipment and utensils clean
24. Kitchen area clean

Refuse Disposal
1. Fly- and rodent-tight containers available
2. Located within 100 feet of shelter
3. Placed on wooden, metal, or concrete stands
4. Garbage containers kept clean
5. Garbage containers emptied when full and no less than twice per week

Rodent Control
1. Effective rodent control measures in place

First Aid Supplies
1. First aid supplies available
2. Person trained to administer first aid

Communicable Diseases
1. Communicable diseases reported to local health authorities
2. Suspected food poisoning, fever, diarrhea, sore throat, vomiting, or jaundice reported to health authorities

General Duty Violations
1. Electrical wiring, fixtures, appliances, equipment

Fire Protection—General Structure
1. Rooms used for sleeping which open to outside and are 900 square feet or larger must have one smoke detector and one alarm device per 900 square feet or fraction thereof
2. Rooms used for sleeping that open to a common corridor or hall must have smoke detectors and alarm devices located approximately 15 feet from the ends of the hall
3. Smoke detectors and alarm devices properly maintained
4. One fire extinguisher present in each building used for sleeping, minimum rating 2a
5. One fire extinguisher present in each building used for cooking, minimum rating 5bc
6. All multistory buildings have a stairway
7. All multistory buildings have a permanently affixed exterior ladder or second stairway
Applications for on-farm facilities are accepted any time during the year and are funded on a first-come, first-served basis, based on the availability of funds. On-farm applications should include the following:

**PRE-APPLICATION SUBMISSION FORMS**

- SF 424-2, Application for Federal Assistance
  Information to be submitted for LH Loans (Includes denial letter from Lender)
- RD Form 1910-11 “Applicant Certification, Federal Collection Policies For Consumer or Commercial Debts”
- RD Form 3550-1 “Statement Required by the Privacy Act”
- AD-1047 “Certification Regarding Debarment, Suspension Credit Report Fees Commercial & Business Report: $25.00 (Make Payable: USDA/RD RD Form 1910-5 “Request for Verification of Employment”
- Financial Statement, Cash Flow Statement (in and out flows), Debt Statement Five year yield history
- Five year tax returns
- Organization Documents if Partnership or Corporation
- Partnership Agreement Articles of Incorporation Certificate of Good Standing
- Resolution Authorizing Application, Obligation of Loan and Designation of Authorized Representative Family Relationship of Stockholders, Partners, etc.

**APPLICATION SUBMISSION FORMS**

- SF 424-2, Application for Federal Assistance (If Fund Amount is Different) RD Form 3550-34 “Option to Purchase Real Property”
- Plans and Specifications, if building RD Form 1924-25 “Plan Certification”
- Contractors Bid
- Survey
- RD Form 1940-20 (Needed if in Flood Zone)
APPENDIX E: ADDITIONAL INFORMATION

From 2017 Census of Agriculture

FIGURE E.1: VERMONT FARMS, BY DAIRY AND NON-DAIRY, 1997-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>All Farms</th>
<th>% Change</th>
<th>Dairy Farms</th>
<th>% Change</th>
<th>Non-Dairy Farms</th>
<th>% Dairy Farms</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>6,808</td>
<td>-7%</td>
<td>711</td>
<td>-21%</td>
<td>6,097</td>
<td>-5%</td>
</tr>
<tr>
<td>2012</td>
<td>7,338</td>
<td>5%</td>
<td>904</td>
<td>-21%</td>
<td>6,434</td>
<td>10%</td>
</tr>
<tr>
<td>2007</td>
<td>6,984</td>
<td>6%</td>
<td>1,141</td>
<td>-17%</td>
<td>5,843</td>
<td>12%</td>
</tr>
<tr>
<td>2002</td>
<td>6,571</td>
<td>-7%</td>
<td>1,367</td>
<td>-23%</td>
<td>5,204</td>
<td>-2%</td>
</tr>
<tr>
<td>1997</td>
<td>7,063</td>
<td></td>
<td>1,767</td>
<td></td>
<td>5,296</td>
<td></td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 Historical Highlights, Table 1, and Selected Characteristics by North American Industry Classification Tables (Various, by year).

FIGURE E.2: VERMONT FARMS, BY DAIRY AND NON-DAIRY, BY COUNTY, 2017

<table>
<thead>
<tr>
<th>County</th>
<th>All Farms</th>
<th>% of VT Total</th>
<th>Dairy Farms</th>
<th>% of VT Total</th>
<th>Non-Dairy Farms</th>
<th>% of VT Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>720</td>
<td>11%</td>
<td>92</td>
<td>13%</td>
<td>628</td>
<td>10%</td>
</tr>
<tr>
<td>Bennington</td>
<td>250</td>
<td>4%</td>
<td>9</td>
<td>1%</td>
<td>241</td>
<td>4%</td>
</tr>
<tr>
<td>Caledonia</td>
<td>585</td>
<td>9%</td>
<td>74</td>
<td>10%</td>
<td>511</td>
<td>8%</td>
</tr>
<tr>
<td>Chittenden</td>
<td>585</td>
<td>9%</td>
<td>38</td>
<td>5%</td>
<td>547</td>
<td>9%</td>
</tr>
<tr>
<td>Essex</td>
<td>106</td>
<td>2%</td>
<td>13</td>
<td>2%</td>
<td>93</td>
<td>2%</td>
</tr>
<tr>
<td>Franklin</td>
<td>729</td>
<td>11%</td>
<td>140</td>
<td>20%</td>
<td>589</td>
<td>10%</td>
</tr>
<tr>
<td>Grand Isle</td>
<td>119</td>
<td>2%</td>
<td>13</td>
<td>2%</td>
<td>106</td>
<td>2%</td>
</tr>
<tr>
<td>Lamoille</td>
<td>329</td>
<td>5%</td>
<td>30</td>
<td>4%</td>
<td>299</td>
<td>5%</td>
</tr>
<tr>
<td>Orange</td>
<td>569</td>
<td>8%</td>
<td>62</td>
<td>9%</td>
<td>507</td>
<td>8%</td>
</tr>
<tr>
<td>Orleans</td>
<td>558</td>
<td>8%</td>
<td>96</td>
<td>14%</td>
<td>462</td>
<td>8%</td>
</tr>
<tr>
<td>Rutland</td>
<td>614</td>
<td>9%</td>
<td>52</td>
<td>7%</td>
<td>562</td>
<td>9%</td>
</tr>
<tr>
<td>Washington</td>
<td>553</td>
<td>8%</td>
<td>44</td>
<td>6%</td>
<td>509</td>
<td>8%</td>
</tr>
<tr>
<td>Windham</td>
<td>414</td>
<td>6%</td>
<td>18</td>
<td>3%</td>
<td>396</td>
<td>6%</td>
</tr>
<tr>
<td>Windsor</td>
<td>677</td>
<td>10%</td>
<td>30</td>
<td>4%</td>
<td>647</td>
<td>11%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6,808</strong></td>
<td></td>
<td><strong>711</strong></td>
<td><strong>10%</strong></td>
<td><strong>6,097</strong></td>
<td><strong>90%</strong></td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 Tables 1 and 44.
## Figure E.3: Farmworkers in Vermont, by Dairy and Non-Dairy, 1997-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Operators</th>
<th>% Change</th>
<th>Hired Labor</th>
<th>% Change</th>
<th>Total</th>
<th>% Change</th>
<th>Dairy Farm</th>
<th>Non-Dairy Farm</th>
<th>% Dairy Farm Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>12,309</td>
<td>68%*</td>
<td>8,458</td>
<td>-8%</td>
<td>20,767</td>
<td>25%</td>
<td>4,360</td>
<td>16,407</td>
<td>21.0%</td>
</tr>
<tr>
<td>2012</td>
<td>7,338</td>
<td>5%</td>
<td>9,216</td>
<td>10%</td>
<td>16,554</td>
<td>8%</td>
<td>4,130</td>
<td>12,424</td>
<td>24.9%</td>
</tr>
<tr>
<td>2007</td>
<td>6,984</td>
<td>6%</td>
<td>8,343</td>
<td>9%</td>
<td>15,327</td>
<td>8%</td>
<td>4,489</td>
<td>10,838</td>
<td>29.3%</td>
</tr>
<tr>
<td>2002</td>
<td>6,571</td>
<td>13%</td>
<td>7,631</td>
<td>-14%</td>
<td>14,202</td>
<td>-4%</td>
<td>5,041</td>
<td>9,161</td>
<td>35.5%</td>
</tr>
<tr>
<td>1997</td>
<td>5,828</td>
<td></td>
<td>8,912</td>
<td></td>
<td>14,740</td>
<td></td>
<td>6,029</td>
<td>8,711</td>
<td>40.9%</td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 - Table 75, 2012 - Table 68, 2007 - Table 58, 2002 - Table 55, 1997 - Tables 46 & 51. * In 2017, terminology and calculation method for operators (now called producers) changed.

## Figure E.4: Farmworkers in Vermont, by Type of Worker, by County, 2017

<table>
<thead>
<tr>
<th>County</th>
<th>Producers</th>
<th>Hired Labor</th>
<th>Migrant Labor</th>
<th>% of VT Total</th>
<th>Unpaid Labor*</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>1,338</td>
<td>1,316</td>
<td>237</td>
<td>32%</td>
<td>823</td>
<td>2,891</td>
</tr>
<tr>
<td>Franklin</td>
<td>1,387</td>
<td>1,128</td>
<td>91</td>
<td>12%</td>
<td>723</td>
<td>2,606</td>
</tr>
<tr>
<td>Chittenden</td>
<td>1,152</td>
<td>875</td>
<td>128</td>
<td>17%</td>
<td>689</td>
<td>2,155</td>
</tr>
<tr>
<td>Windsor</td>
<td>1,244</td>
<td>576</td>
<td>7</td>
<td>1%</td>
<td>759</td>
<td>1,827</td>
</tr>
<tr>
<td>Orleans</td>
<td>990</td>
<td>773</td>
<td>30</td>
<td>4%</td>
<td>441</td>
<td>1,793</td>
</tr>
<tr>
<td>Orange</td>
<td>1,024</td>
<td>680</td>
<td>48</td>
<td>7%</td>
<td>769</td>
<td>1,752</td>
</tr>
<tr>
<td>Caledonia</td>
<td>1,101</td>
<td>449</td>
<td>13</td>
<td>2%</td>
<td>725</td>
<td>1,563</td>
</tr>
<tr>
<td>Rutland</td>
<td>1,102</td>
<td>434</td>
<td>D</td>
<td></td>
<td>653</td>
<td>1,536</td>
</tr>
<tr>
<td>Washington</td>
<td>1,012</td>
<td>479</td>
<td>27</td>
<td>4%</td>
<td>671</td>
<td>1,518</td>
</tr>
<tr>
<td>Windham</td>
<td>744</td>
<td>620</td>
<td>116</td>
<td>16%</td>
<td>503</td>
<td>1,480</td>
</tr>
<tr>
<td>Lamoille</td>
<td>628</td>
<td>377</td>
<td>18</td>
<td>2%</td>
<td>432</td>
<td>1,023</td>
</tr>
<tr>
<td>Bennington</td>
<td>449</td>
<td>288</td>
<td>D</td>
<td></td>
<td>290</td>
<td>737</td>
</tr>
<tr>
<td>Essex</td>
<td>173</td>
<td>296</td>
<td>D</td>
<td></td>
<td>85</td>
<td>469</td>
</tr>
<tr>
<td>Grand Isle</td>
<td>196</td>
<td>167</td>
<td>21</td>
<td>3%</td>
<td>147</td>
<td>384</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>12,540</strong></td>
<td><strong>8,458</strong></td>
<td><strong>736</strong></td>
<td><strong>100%</strong></td>
<td><strong>7,709</strong></td>
<td><strong>21,734</strong></td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 Tables 7 and 45. D - Data suppressed, generally corresponds to only 1 farm reporting. * Unpaid Labor is a subset of Producers.
### FIGURE E.5: FARMS, BY MARKET VALUE OF AGRICULTURAL PRODUCTS AND BY TYPE AND NUMBER OF EMPLOYEES, 2017

<table>
<thead>
<tr>
<th></th>
<th>All Farms</th>
<th>$500,00 or more</th>
<th>$250,000 to $49,999</th>
<th>$100,000 to $249,999</th>
<th>$50,000 to $99,999</th>
<th>$25,000 to $49,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Farms</td>
<td>6,808</td>
<td>297</td>
<td>315</td>
<td>465</td>
<td>374</td>
<td>460</td>
</tr>
<tr>
<td>% of Farms in Dairy</td>
<td>11%</td>
<td>84%</td>
<td>70%</td>
<td>40%</td>
<td>14%</td>
<td>3%</td>
</tr>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hired Farm Labor</td>
<td>8,458</td>
<td>3,017</td>
<td>1,136</td>
<td>1,195</td>
<td>727</td>
<td>544</td>
</tr>
<tr>
<td>Unpaid Workers</td>
<td>7,709</td>
<td>161</td>
<td>257</td>
<td>337</td>
<td>371</td>
<td>554</td>
</tr>
<tr>
<td>Average Number</td>
<td>1.2</td>
<td>10.2</td>
<td>3.6</td>
<td>2.6</td>
<td>1.9</td>
<td>1.2</td>
</tr>
<tr>
<td>of Hired Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor per Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Number</td>
<td>1.1</td>
<td>0.5</td>
<td>0.8</td>
<td>0.7</td>
<td>1.0</td>
<td>1.2</td>
</tr>
<tr>
<td>of Unpaid Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### FIGURE E.5: FARMS, BY MARKET VALUE OF AGRICULTURAL PRODUCTS AND BY TYPE AND NUMBER OF EMPLOYEES, 2017 (Continued)

<table>
<thead>
<tr>
<th></th>
<th>All Farms</th>
<th>$10,000 to $24,999</th>
<th>$5,000 to $9,999</th>
<th>$2,500 to $4,999</th>
<th>$1,000 to $2,499</th>
<th>Less than $1,000</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Farms</td>
<td>6,808</td>
<td>907</td>
<td>854</td>
<td>825</td>
<td>785</td>
<td>1,526</td>
</tr>
<tr>
<td>% of Farms in Dairy</td>
<td>11%</td>
<td>1%</td>
<td>1%</td>
<td>0.4%</td>
<td>0.4%</td>
<td>0.0%</td>
</tr>
<tr>
<td>Production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hired Farm Labor</td>
<td>8,458</td>
<td>732</td>
<td>346</td>
<td>220</td>
<td>123</td>
<td>418</td>
</tr>
<tr>
<td>Unpaid Workers</td>
<td>7,709</td>
<td>1,206</td>
<td>1,167</td>
<td>1,008</td>
<td>967</td>
<td>1,681</td>
</tr>
<tr>
<td>Average Number</td>
<td>1.2</td>
<td>0.8</td>
<td>0.4</td>
<td>0.3</td>
<td>0.2</td>
<td>0.3</td>
</tr>
<tr>
<td>of Hired Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Labor per Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average Number</td>
<td>1.1</td>
<td>1.3</td>
<td>1.4</td>
<td>1.2</td>
<td>1.2</td>
<td>1.1</td>
</tr>
<tr>
<td>of Unpaid Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>per Farm</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Source:** USDA Census of Agriculture, 2017 Table 72. **Note:** only 2,042 farms reported having hired labor or unpaid workers.
### FIGURE E.6: FARMS, BY SIZE, BY COUNTY, 2017

<table>
<thead>
<tr>
<th>County</th>
<th>All Farms</th>
<th>$500k or more</th>
<th>% of VT Total</th>
<th>$100k to $499k</th>
<th>% of VT Total</th>
<th>Less than $100k</th>
<th>% of VT Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addison</td>
<td>720</td>
<td>64</td>
<td>22%</td>
<td>90</td>
<td>12%</td>
<td>566</td>
<td>8%</td>
</tr>
<tr>
<td>Bennington</td>
<td>250</td>
<td>8</td>
<td>3%</td>
<td>8</td>
<td>1%</td>
<td>234</td>
<td>3%</td>
</tr>
<tr>
<td>Caledonia</td>
<td>585</td>
<td>9</td>
<td>3%</td>
<td>89</td>
<td>11%</td>
<td>487</td>
<td>7%</td>
</tr>
<tr>
<td>Chittenden</td>
<td>585</td>
<td>22</td>
<td>7%</td>
<td>48</td>
<td>6%</td>
<td>515</td>
<td>8%</td>
</tr>
<tr>
<td>Essex</td>
<td>106</td>
<td>7</td>
<td>2%</td>
<td>13</td>
<td>2%</td>
<td>86</td>
<td>1%</td>
</tr>
<tr>
<td>Franklin</td>
<td>729</td>
<td>79</td>
<td>27%</td>
<td>152</td>
<td>19%</td>
<td>498</td>
<td>7%</td>
</tr>
<tr>
<td>Grand Isle</td>
<td>119</td>
<td>7</td>
<td>2%</td>
<td>20</td>
<td>3%</td>
<td>93</td>
<td>1%</td>
</tr>
<tr>
<td>Lamoille</td>
<td>329</td>
<td>11</td>
<td>4%</td>
<td>41</td>
<td>5%</td>
<td>277</td>
<td>4%</td>
</tr>
<tr>
<td>Orange</td>
<td>569</td>
<td>20</td>
<td>7%</td>
<td>63</td>
<td>8%</td>
<td>486</td>
<td>7%</td>
</tr>
<tr>
<td>Orleans</td>
<td>558</td>
<td>34</td>
<td>11%</td>
<td>84</td>
<td>11%</td>
<td>440</td>
<td>6%</td>
</tr>
<tr>
<td>Rutland</td>
<td>614</td>
<td>9</td>
<td>3%</td>
<td>57</td>
<td>7%</td>
<td>548</td>
<td>8%</td>
</tr>
<tr>
<td>Washington</td>
<td>553</td>
<td>6</td>
<td>2%</td>
<td>44</td>
<td>6%</td>
<td>503</td>
<td>7%</td>
</tr>
<tr>
<td>Windham</td>
<td>414</td>
<td>13</td>
<td>4%</td>
<td>22</td>
<td>3%</td>
<td>379</td>
<td>6%</td>
</tr>
<tr>
<td>Windsor</td>
<td>677</td>
<td>8</td>
<td>3%</td>
<td>50</td>
<td>6%</td>
<td>619</td>
<td>9%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>6,808</strong></td>
<td><strong>297</strong></td>
<td><strong>4%</strong></td>
<td><strong>780</strong></td>
<td><strong>11%</strong></td>
<td><strong>5,731</strong></td>
<td><strong>84%</strong></td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 Table 2.

### FIGURE E.7: NET CASH FARM INCOME FROM OPERATIONS, 2012 & 2017

<table>
<thead>
<tr>
<th>Farm</th>
<th>2017</th>
<th>% of All Farms</th>
<th>Average Farm Income</th>
<th>2012</th>
<th>% of All Farms</th>
<th>Average Farm Income</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Farms</td>
<td>6,808</td>
<td>100%</td>
<td>$26,215</td>
<td>7,338</td>
<td>100%</td>
<td>$20,772</td>
</tr>
<tr>
<td>Farms with Net Gains</td>
<td>2,864</td>
<td>42%</td>
<td>$86,479</td>
<td>3,078</td>
<td>42%</td>
<td>$74,642</td>
</tr>
<tr>
<td>Net Gains of &lt;$50,000</td>
<td>1,970</td>
<td>29%</td>
<td>$13,350</td>
<td>2,212</td>
<td>30%</td>
<td>$12,297</td>
</tr>
<tr>
<td>Net Gains of &gt;$50,000</td>
<td>894</td>
<td>13%</td>
<td>$247,521</td>
<td>866</td>
<td>12%</td>
<td>$233,506</td>
</tr>
<tr>
<td>Farms with Net Losses</td>
<td>3,944</td>
<td>58%</td>
<td>-$17,547</td>
<td>4,260</td>
<td>58%</td>
<td>-$18,151</td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 Table 5.

### FIGURE E.8: CHANGES IN NUMBER OF FARMS, ACRES OF FARMLAND, AND FARM EMPLOYMENT, 1997-2017

<table>
<thead>
<tr>
<th>Year</th>
<th>Farms</th>
<th>Change from 1997</th>
<th>Acres Farmed</th>
<th>Change from 1997</th>
<th>Hired Workers</th>
<th>Change from 1997</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>6,808</td>
<td>-255</td>
<td>1,193,437</td>
<td>-121,878</td>
<td>8,458</td>
<td>-454</td>
</tr>
<tr>
<td>2012</td>
<td>7,338</td>
<td>275</td>
<td>1,251,713</td>
<td>-63,602</td>
<td>9,216</td>
<td>304</td>
</tr>
<tr>
<td>2007</td>
<td>6,984</td>
<td>-79</td>
<td>1,233,313</td>
<td>-82,002</td>
<td>8,343</td>
<td>-569</td>
</tr>
<tr>
<td>2002</td>
<td>6,571</td>
<td>-493</td>
<td>1,244,909</td>
<td>-70,002</td>
<td>7,631</td>
<td>-1,281</td>
</tr>
<tr>
<td>1997</td>
<td>7,063</td>
<td>125</td>
<td>1,315,315</td>
<td></td>
<td>8,912</td>
<td></td>
</tr>
</tbody>
</table>

Source: USDA Census of Agriculture, 2017 Historical Highlights, Table 1, and Selected Characteristics by North American Industry Classification Tables (Various, by year).
**FIGURE E.9: FARMS ENROLLED IN H-2A PROGRAM, 2020**

<table>
<thead>
<tr>
<th>Farm</th>
<th>Total 2020 Contracts</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Champlain Orchards</td>
<td>59</td>
<td>Addison</td>
</tr>
<tr>
<td>Stonewood Farm</td>
<td>39</td>
<td>Addison</td>
</tr>
<tr>
<td>Peter C. Ochs</td>
<td>33</td>
<td>Addison</td>
</tr>
<tr>
<td>John Palmer</td>
<td>24</td>
<td>Addison</td>
</tr>
<tr>
<td>Sunrise Orchards</td>
<td>24</td>
<td>Addison</td>
</tr>
<tr>
<td>Happy Valley Orchard</td>
<td>12</td>
<td>Addison</td>
</tr>
<tr>
<td>Lewis Creek Farm</td>
<td>12</td>
<td>Addison</td>
</tr>
<tr>
<td>Great Vermont American</td>
<td>6</td>
<td>Addison</td>
</tr>
<tr>
<td>Lilyquest</td>
<td>6</td>
<td>Addison</td>
</tr>
<tr>
<td>Boyers Orchard</td>
<td>4</td>
<td>Addison</td>
</tr>
<tr>
<td>Christopher Roeloff’s</td>
<td>2</td>
<td>Addison</td>
</tr>
<tr>
<td>Last Resort Farm Organics</td>
<td>2</td>
<td>Addison</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>223</strong></td>
<td>Addison</td>
</tr>
<tr>
<td>Southern Vermont Orchards</td>
<td>68</td>
<td>Bennington</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>68</strong></td>
<td>Bennington</td>
</tr>
<tr>
<td>Pete’s Greens</td>
<td>32</td>
<td>Caledonia</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>32</strong></td>
<td>Caledonia</td>
</tr>
<tr>
<td>Paul Mazza’s Fruit &amp; Vegetable Stand</td>
<td>23</td>
<td>Chittenden</td>
</tr>
<tr>
<td>S. Mazza Farm</td>
<td>20</td>
<td>Chittenden</td>
</tr>
<tr>
<td>Adam’s Berry Farm</td>
<td>8</td>
<td>Chittenden</td>
</tr>
<tr>
<td>Jericho Settlers Farm</td>
<td>8</td>
<td>Chittenden</td>
</tr>
<tr>
<td>Adams Turkey Farm</td>
<td>6</td>
<td>Chittenden</td>
</tr>
<tr>
<td>Full Moon Farm</td>
<td>6</td>
<td>Chittenden</td>
</tr>
<tr>
<td>Fully Belly Farm</td>
<td>4</td>
<td>Chittenden</td>
</tr>
<tr>
<td>David K. Adams</td>
<td>2</td>
<td>Chittenden</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>77</strong></td>
<td>Chittenden</td>
</tr>
<tr>
<td>Ray Allen</td>
<td>16</td>
<td>Grand Isle</td>
</tr>
<tr>
<td>Allen Hall</td>
<td>6</td>
<td>Grand Isle</td>
</tr>
<tr>
<td>Reynold N. Hackett</td>
<td>4</td>
<td>Grand Isle</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>26</strong></td>
<td>Grand Isle</td>
</tr>
<tr>
<td>Tony Lehouillier</td>
<td>8</td>
<td>Lamoille</td>
</tr>
<tr>
<td>Valley Dream Farm</td>
<td>4</td>
<td>Lamoille</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td><strong>12</strong></td>
<td>Lamoille</td>
</tr>
<tr>
<td>4 Corners Farm</td>
<td>17</td>
<td>Orange</td>
</tr>
<tr>
<td>Newmont Farm</td>
<td>14</td>
<td>Orange</td>
</tr>
<tr>
<td>David Pierson</td>
<td>6</td>
<td>Orange</td>
</tr>
</tbody>
</table>

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### FIGURE E.9: FARMS ENROLLED IN H-2A PROGRAM, 2020

<table>
<thead>
<tr>
<th>Farm</th>
<th>Total 2020 Contracts</th>
<th>County</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bear Roots Farm</td>
<td>4</td>
<td>Orange</td>
</tr>
<tr>
<td>Coleman Colburn</td>
<td>4</td>
<td>Orange</td>
</tr>
<tr>
<td>Greybar</td>
<td>4</td>
<td>Orange</td>
</tr>
<tr>
<td>Timothy D. Sanford</td>
<td>4</td>
<td>Orange</td>
</tr>
<tr>
<td>Hurricane Flats</td>
<td>2</td>
<td>Orange</td>
</tr>
<tr>
<td>Upper Valley Spanish Institute</td>
<td>2</td>
<td>Orange</td>
</tr>
<tr>
<td>William Moynihan</td>
<td>2</td>
<td>Orange</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>59</td>
<td>Orange</td>
</tr>
<tr>
<td>Richard Hourihan</td>
<td>12</td>
<td>Washington</td>
</tr>
<tr>
<td>Foster Farm Botanicals</td>
<td>10</td>
<td>Washington</td>
</tr>
<tr>
<td>Dog River Farm</td>
<td>8</td>
<td>Washington</td>
</tr>
<tr>
<td>Forest Farmers</td>
<td>8</td>
<td>Washington</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>38</td>
<td>Washington</td>
</tr>
<tr>
<td>Green Mountain Orchards</td>
<td>21</td>
<td>Windham</td>
</tr>
<tr>
<td>Dutton Berry Farm</td>
<td>18</td>
<td>Windham</td>
</tr>
<tr>
<td>Scott Farm</td>
<td>14</td>
<td>Windham</td>
</tr>
<tr>
<td>Dwight Read Miller</td>
<td>6</td>
<td>Windham</td>
</tr>
<tr>
<td>Michael Collins</td>
<td>6</td>
<td>Windham</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>65</td>
<td>Windham</td>
</tr>
<tr>
<td>Riverview Market Farms</td>
<td>17</td>
<td>Windsor</td>
</tr>
<tr>
<td>Blais Produce</td>
<td>14</td>
<td>Windsor</td>
</tr>
<tr>
<td>Allen Brothers</td>
<td>10</td>
<td>Windsor</td>
</tr>
<tr>
<td>Jon Cohen</td>
<td>8</td>
<td>Windsor</td>
</tr>
<tr>
<td>Alexander G. Maclennan</td>
<td>4</td>
<td>Windsor</td>
</tr>
<tr>
<td>Wellwood Orchards</td>
<td>4</td>
<td>Windsor</td>
</tr>
<tr>
<td><strong>Subtotal</strong></td>
<td>57</td>
<td>Windsor</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td>657</td>
<td></td>
</tr>
</tbody>
</table>