

## **Disease Risk Management Capabilities of Livestock Handlers Employed on American Farms**

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September 22, 2017

**Summary:** The efforts and talents of hired hands on livestock operations may be essential for effective management of animal disease risks, but their capabilities are not well known. Existing data suggest:

- Most farms with livestock in the U.S. are owned and operated by members of an American-born family, often working below minimum wage and part-time, but most livestock are reared by unrelated, full-time hired hands.
- Most hired hands are immigrants for whom English is a second language.
- Most farm owners and managers highly value these immigrant employees.
- Most hired hands have significantly less formal education than their supervisors or regulators and limited ability to read or write, especially in English, the first language of their bosses.
- Most hired hands have difficulty understanding or carrying on a conversation with farm owners or managers.
- Most hired hands are apt to leave their employer within a couple of years.

Together, albeit with significant limitations, these findings suggest that employees' ability to prevent and respond to disease may be more limited and require more support than regulators, employers and other stakeholders anticipate.

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There are lots of reasons to appreciate the people hired to tend livestock on American farms. Their employers – people with higher position, pay and authority – likely have more responsibility for the operation as a whole, for hiring and firing, and for sustaining services to consumers and creditors. They are the ones who arrange for necessities of life to arrive on-farm on-time. But their relationship to animals is likely to be less hands-on.

Hired hands are the ones who deliver the bulk of actual animal care every day. Their work is distinctly “3D” – dirty, difficult, and dangerous – and their income rarely exceeds the federal poverty level. The work itself can be intense. OSHA reports show that on average they get injured on the job more often than just about any other category of worker.

Efforts to improve livestock operations can only be as effective as their embrace by these on-farm personnel. Certainly, the management of disease risks depends on their performance.

Hands can be very busy just keeping up with chores, like feeding and sorting cattle, vaccinating piglets, loading chickens, collecting eggs, milking cows, hauling replacement stock, supplies and manure. How well can they also be expected to monitor each animal's health? To minimize risks of pathogen exposure or disease transmission? To recognize and report the first signs of an

infection that may look minor, familiar and easily treated but that may also, according to the latest regulations, require immediate notification of authorities?

In the case of some highly contagious diseases, a few hours lost in response time can mean the difference between business continuity and national catastrophe, millions or even billions of dollars of added costs, massive suffering, and whole years for recovery.

When animal-health officials “reach out to producers” to “partner” against such risks, they ordinarily engage people who stand at least a bit removed from the work itself. These “stakeholders” can find time to wash up, travel or log-in to meetings. They are usually official representatives of ownership or management – integrators, co-ops, marketing or commodity groups – who have been around long enough to well articulate their interests and to be recognized by regulators and Extension agents.

Farm workers are rarely included in such circles. They may be too isolated or busy, hired too recently or otherwise too new to the scene to be well networked or schooled on issues that managers, regulators and other stakeholders consider crucial for animal health at a state or national level. Their capabilities are crucial but hard to assess.

What relevant information is available about these people? Does it suggest that livestock handlers are, in fact, in good communication with their employers and well represented in commodity groups? Do they – literally – speak the same language? Are they on the same wave length in terms of formal education or access to timely information? Are multilingual aids like Spanish/English placards on disease or reporting requirements truly legible to the people who are supposed to use them? If biosecurity, surveillance, and emergency-response training are offered or required, for how long are the trainees and the lessons they learned apt to remain on-the-job?

Unfortunately, very little consistent, comprehensive and well-vetted information of this sort is available for the United States. For example, the repositories of national demographics that could be expected to cover workers on livestock operations – the U.S. Departments of Labor, Commerce and Agriculture, the U.S. Population and Agricultural Censuses – do not systematically track them.

There is valuable information on “agricultural workers” in general, at least those with documented citizenship status, but only if they work on crops rather than livestock operations. There are also more speculative, state- and national-level data on “foreign-born” workers, but again not for livestock operations, where they are a small share (less than 10 percent) of the national total and where working conditions (as well as the possibilities for USCIS documentation) are barely comparable.

For example, immigrants, particularly from Mexico, by all accounts represent a large share of all agricultural workers in the U.S. When they work on crops, they are apt to be employed in certain areas (e.g., in California), to be engaged through a contractor (FLC), and expected to return to their “usual home” (supposedly at least 75 miles away) as soon as a particular round of cultivating, pruning or harvest is done. Most official options for documenting immigration as well as local regulations target such “seasonal migrant workers,” yielding official opportunities as well to learn about them. But fewer of these options are available for year-round jobs like working with commercial herds. The U.S. Department of Labor specifically excludes livestock handlers from its National Agricultural Workers Survey (NAWS).

Blind spots can also be built into relations between producers and the processing and marketing companies with which they trade. Contract growers (farms that care for integrator-owned poultry, cattle, or swine) or “independent” feedlots and dairy farms are by design legally separate from the integrators that handle most of their inputs and output as well as the commodity groups that speak for “producers.” In fact, a significant incentive for integrators to use contract growers is reducing their liability for what happens on farms. They often require that growers keep the terms of their contracts and operational details confidential. Cattle feeders have long led resistance to sharing with regulators the identity, location, population and medical history of their herds, and they are even less inclined to volunteer information about their payroll, such as the backgrounds, talents and tenure of employees.

Given such patterns in the way that data are collected and the American food industry is organized, knowledge about livestock handlers in the U.S. is spotty at best. For some sectors (particularly dairy) there is good information on a few key states (California, New York, Wisconsin) that academics or regulators have successfully surveyed. In other cases (particularly poultry) there is very little that has been vetted and released. So, public information on these crucial participants in disease management is very incomplete.

The following are only the most established of point estimates. They are reliable for single livestock sectors (generally, dairy rather than beef, poultry, or pork) in a few states and a few recent periods of time. They should be considered suggestive rather than representative of conditions on all the nation’s livestock operations.

- **Most farms with livestock in the U.S. are owned and operated by members of an American-born family, often working below minimum wage and part-time, but most livestock are reared by unrelated, full-time hired hands.**

U.S. farms have been declining in number and increasing in size for more than a century. The largest 10-20 percent of operations now produce 80-90 percent of the nation’s food. Most livestock farms have at least a hired hand or two, and larger farms – about a third of all operations, where most of the nation’s livestock are housed – are overwhelmingly staffed by immigrant labor. For example, about half of the workers on American dairy farms (77,000 of 150,000) are immigrants, but they are concentrated on relatively few farms that produce a huge and increasing share of the nation’s milk supply. Dairy farms with immigrant employees accounted for about 80 percent of the national milk supply in 2014, up from about 60 percent just five years earlier.

- **Most hired hands are immigrants for whom English is a second language.**

Judging from crop workers (surveyed nationally by NAWS), about 70 percent of all farmworkers (about 1.2 million FTEs in all) are immigrants, and 95 percent of them come from Mexico, with an additional 3 percent from Central America. Spanish is their dominant language, and most say that they are uncomfortable with English. In California, the share who say they can speak English “well” has long been less than one in three. A survey in 2009 found that over 40 percent of dairy farm workers in Wisconsin were Latino immigrants, of which 90 percent were Mexican. Other studies have found similar backgrounds of dairy workers in New York. In North Carolina, it is reportedly hard to find chicken catchers who are anything but young, male, undocumented Spanish speakers.

- **Most farm owners and managers highly value these immigrant employees.**

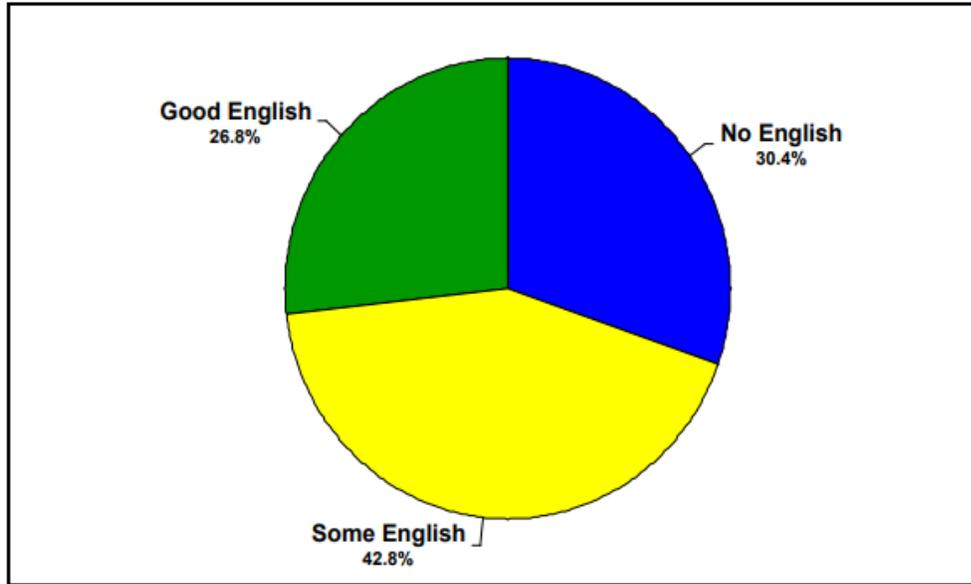
For example, dairy farms that employ immigrant workers on average pay higher wages and offer more non-wage benefits than the farms that do not. About 80 percent of employers continue to hire immigrants, even though they also say that they are concerned about documentation and the possibility of audits or raids. (About half of workers surveyed by NAWS – crop workers – lack USCIS authorization to work or live in the U.S.) Wisconsin dairy farmers told researchers that they had difficulty finding “reliable” U.S.-born help and wished their immigrant employees were better legally protected and respected by the public. California recognizes that less than 10 percent of its farm workers work with animals (vs. crops), but that small minority accounts for more than a quarter of the value of the state’s agricultural production.

- **Most hired hands have significantly less formal education than their supervisors or regulators and limited ability to read or write, especially in English, the first language of their bosses.**

The farms where most of the nation’s food is grown tend to be owned or managed by English mother-tongue citizens with post-secondary education. A survey of dairy workers in New York in 2005 reported that hired hands were overwhelmingly young (84 percent were 30 years old or younger), male, poor, and relatively unschooled. More than half had not progressed beyond primary grades, and only about a quarter had completed high school. Anecdotal evidence suggests that levels of formal education may be declining with increasing share of emigrants from more indigenous states in the south of Mexico (e.g., Oaxaca and Chiapas).

- **Most hired hands have difficulty understanding or carrying on a conversation with farm owners or managers.**

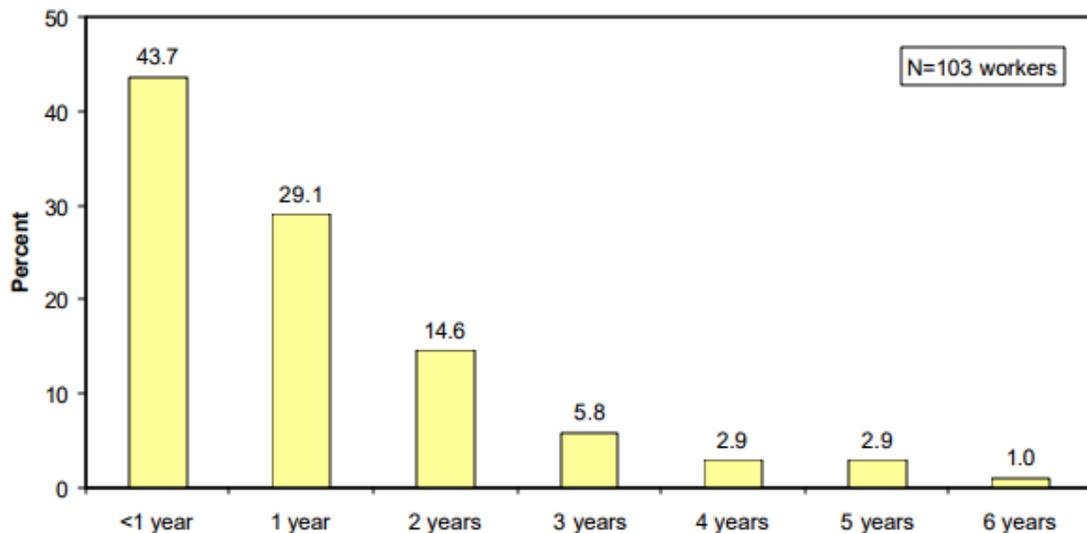
For example, in replicated surveys of dairy farms in New York, both employers and employees rated communication (language and cross-cultural understanding) among their greatest challenges on-the-job. In 2005, nearly all employers (96 percent) rated language differences with employees as the greatest barrier to working together. About 30 percent of employees as well as their bosses said that they could use an interpreter or need second-language training. They agreed that English comprehension among Latino employees remained unreliable when resurveyed in 2009.<sup>1</sup>



- **Most hired hands are apt to leave their employer within a couple of years.**

Immigrant workers tend to have distant family commitments and concerns about their legal status in the U.S., potential hassles or deportation, and farm managers have grown accustomed to thinking that immigrant workers have one foot out the door. Retention of these workers in practice is not a high HR priority on farms. In addition, since demand for their labor is high and news of other, potentially better jobs is readily accessible by cell phone, agricultural workers are inclined to improve their job prospects by changing employers. In a recent survey, dairy farmers reported an average annual turnover of about 15 percent, but it is clearly higher when and where they are immigrants. Once identified, only six out of 100 farmworkers in Wisconsin could be found ten years later. In a New York survey, about three quarters of dairy employees lasted a year or less.<sup>2</sup>

**Figure 8: Distribution of Years with the Farm**



With due allowance for their limitations, these findings together suggest that the backgrounds and working conditions for hired hands may limit the prospects for implementing emerging protocols for managing risk of animal-disease outbreaks. For example, bilingual signage and training are unlikely to have much impact if, as seems likely, employees have trouble comprehending them or, even if they succeed, leaving before they can use them.

Hired hands on livestock operations, particularly immigrants, may require much greater support before they can be counted on to deliver the consistent, thorough disease-risk protection that livestock, regulators and other stakeholders require.

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<sup>1</sup> Thomas R. Maloney and Nelson L. Bills. [Survey of New York Dairy Farm Employers 2009](#) (Ithaca, NY: Dyson School of Economics and Management, Cornell University, 2011), pp. 28-29.

<sup>2</sup> Thomas R. Maloney and David C. Grusenmeyer, [Survey of Hispanic Dairy Workers in New York State](#) (Ithaca, NY: Cornell University, 2005), p. 10.