Defining Wildfire Health Threats in the Ag Community

November 2, 2018 Virtual Think Tank Results

AgriSafe Network conducted a virtual Think Tank on wildfires and the specific health and safety issues related to farmers and ranchers.

The presentation was marked by polling questions that gauged the attendees opinions and perspectives on wildfire health threats, resources, and future implications.

These results and other wildfire resources can be found at: www.agrisafe.org

What words come to mind when thinking about wildfire health threats among the Ag population?
I believe that wildfire resources effectively educate the public on health effects:

Almost half of respondents stated that there are not effective resources available for the public as it relates to wildfire health threats.

The lack of 'Strongly Agree' responses alludes to a need for better and more appropriate resources to educate individuals about the health and safety threats due to wildfires.

What is the best method for educating farmers and ranchers regarding wildfire health threats?

"FFA and 4H Groups"  "AgrAability Program"  "Education providers"

"Youth Farm Safety Education and Certification Program"

"Rural Fire Protection Agency (RFPA)"

"Radio"

"Facebook videos"  "Newspaper"

"Farmer Co-ops"

"Cattlemen Association Association"

"Billboards"  "State Fairs"

"Community Health Workers"

"Community hot spots"

"Healthcare providers and firefighters"

"Extension Disaster Education Network (EDEN)"

"Rural Firefighters"

"TV commercials"  "Church"

"Beginning Farmers Ranchers Program"
What other organizations should be engaged in a public health response to wildfire threat?

Attendees’ responses supported the idea that more organizations should be engaged and prepared to offer helpful information during wildfire events.

- "FEMA"
- "Emergency Operation Centers"
- "Home health"
- "Rural churches"
- "NIOSH Ag Centers"
- "Tribal health departments or activist groups"
- "Volunteers"
- "Extension Programs in high risk states"
- "OSHA"
- "All medical providers practicing in these areas"

What wildfire health threats do you consider most significant?

The majority of participants agreed that respiratory health is the most significant impacting those in wildfire affected areas. Exposure to smoke and effective personal protective equipment (PPE) for farmers and ranchers that work outside daily should be a focus of future research.
Who should take primary responsibility of protecting the health of farmers and ranchers during wildfires?

State Government Agencies: 16%
Federal Government such as FEMA: 11%
Farmers and Ranchers: 47%
Farm Commodity Associations
Academic Institutions
Local Public Health Agencies: 26%

Almost half of participants believe that farmers and ranchers are responsible for keeping themselves protected during wildfire events. This insight displays how imperative it is for information and resources to be easily understood and obtained by Ag producers wishing to protect themselves.

What are some research ideas that could aid in the prevention of wildfire health threats?

"Ag worker Readiness and Training for Wildfires"
"Extended Exposure periods"
"Chronic/cumulative smoke exposure health effects"
"Perceptions of risks"
"Methods to minimize spreading of wildfires"
"What are the crossover hazards"
"How do our primary care clinics and hospitals communicate with our agricultural service organizations?"
"Retrospective study looking at those who used NIOSH approved respirators, non-approved respirators, and none at all in people at risk of wildfire"
"Farmer understanding of hazard crossovers"
What long-term health effects do you believe can be caused by wildfire smoke?

- Lung cancer and/or other cancers
- COPD
- Premature death
- Cancer
- Stress
- Early death
- Strokes
- Stress induced mental health difficulties
- Disproportionate issues for sensitive populations (kids, older folks, etc.)
- Asthma
- What needs to be done to get more prescribed fire
- Allergy exacerbations
- COPD
- Gastrointestinal issues due to consuming affected produce
- Aggravation of pre-existing issues (respiratory, cardiovascular, etc.)
- Changes in mood and behavior
- Heart Attacks
- Pulmonary disease
- Eye irritation
- Heart diseases
- Increased asthma
- Respiratory issues
- Reproductive outcomes possibly

Conditions related to respiratory health were the most often cited long-term health effects. Respiratory health was a consistent theme and issue mentioned during the webinar.

Loss of farm land and livestock is common due to wildfires. How do you believe this is impacting the mental health and/or economic vitality of rural communities?

Conditions such as decreased health, increased stress, loss, financial strain, and mental health were frequently mentioned during the webinar as issues impacting rural communities.
1. What words come to mind when thinking about wildfire health threats among the Ag population?
2. What wildfire health threats do you consider most significant?
   a. Well Water Contamination
   b. Respiratory Health
   c. Heat Illnesses
   d. Mental Stress
   e. Injuries or Illness caused by Animals
   f. At Risk Individuals (Children, Pregnant Women, Older Adults)
   g. Other
3. I believe that wildfire resources effectively educate the public on health effects
   a. Strongly Agree
   b. Agree
   c. Neutral
   d. Disagree
   e. Strongly Disagree
4. What is the best method for educating farmers and ranchers regarding wildfire health threats?
5. What other organizations should be engaged in a public health response to wildfire threats?
6. The respirators worn in the previous slide are adequate for wildfire particulate matter.
   a. Yes
   b. No
   c. Unsure
7. What are some research ideas that could aid in the prevention of wildfire health threats?
8. What long-term health effects do you believe can be caused by wildfire smoke?
9. Loss of farm land and livestock is common due to wildfires. How do you believe this is impacting the mental health and/or economic vitality of rural communities?
10. Who should take primary responsibility of protecting the health of farmers and ranchers during wildfires?
    a. State Government Agencies
    b. Federal Government such as FEMA
    c. Farmers and Ranchers
    d. Farm Commodity Associations
    e. Academic Institutions
    f. Local Public Health Agencies
11. Name organizations or groups you believe can be a valuable resources for farmers and ranchers?
Moving Forward

Timely information and resources are needed to help protect Ag producers from dangerous implications due to wildfires. This Think Tank provided important perspectives from our stakeholders and we appreciate their contributions.

From our research and attendee feedback, we have concluded that there is a need for clear and concise resources to educate the public and agricultural producers alike about wildfire health threats.

**AgriSafe Action Steps:**

- Create social media campaign to increase use of NIOSH approved respirators
- Use Air Quality Index to determine high risk areas and target educational campaigns
- Train rural health professionals on appropriate PPE and realistic work expectations
- Continue offering online **trainings and webinars** about emerging issues related to wildfires

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**AgriSafe Resources on Wildfires**

Click on images below for link.

- Wildfire Health Threats in the Agriculture Community
- Wildfire Fact Sheet

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**Other Resources on Wildfires Health Impacts**

- USGS - Wildfire & Water Quality
- EPA - Air Quality Index
- EPA - Particulate Matter

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