



Nº1

**30 ABRIL
2023**

**Boletín de
Seguridad y
Salud en el
Trabajo del
Sector
Agrícola**



**Instituto Andaluz de Prevención
de Riesgos Laborales**
Consejería de Empleo, Empresa
y Trabajo Autónomo

**Laboratorio-Observatorio Andaluz de
Condiciones de Trabajo en el Sector Agrícola
(LASA)**

<https://www.juntadeandalucia.es/organismos/iaprl/areas/investigacion/lasa.html>

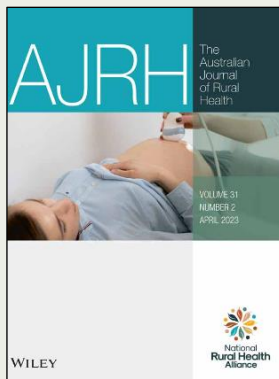
Finalidad de este documento

Este boletín realizado desde el Laboratorio-Observatorio Andaluz de Condiciones de Trabajo en el Sector Agrícola (LASA) engloba diferentes artículos científicos sobre Seguridad y Salud en el Trabajo (SST) en el sector de la agricultura. Recoge trabajos que han sido publicados en revistas del Journal Citation Reports en el primer cuatrimestre del año 2023. Se expone el título y resumen en inglés de cada artículo junto con su información principal. Además, en todos se presenta un breve resumen en español de los aspectos más destacados. Este boletín pretende facilitar la revisión de los artículos publicados en este ámbito en el período de tiempo indicado y el acceso a las revistas correspondientes.

Índice

THE AUSTRALIAN JOURNAL OF RURAL HEALTH.....	5
ARTÍCULO 1: Farm-related injury deaths in Australia (2001–20).....	5
ARTÍCULO 2: Internal locus of control buffers the impact of daily stressors on Australian Farmers' well-being: A cross-sectional study	7
INTERNATIONAL JOURNAL OF INDUSTRIAL ERGONOMICS	9
ARTÍCULO 3: Heat strain while wearing pesticide protective clothing in hot environments: Effects of textile physical properties and ambient humidity.....	9
ARTÍCULO 4: Development of a tractor operator-operation environment coupled biomechanical model and analysis of lower limb muscle fatigue.....	11
INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS	13
ARTÍCULO 5: Approach for ergonomic assessment of self-propelled combine harvester seats based on anthropometric body dimensions	13
JOURNAL OF AGROMEDICINE.....	15
ARTÍCULO 6: Self-reported Quad Bike Use, Safety Behaviors, and Safety Awareness among Young Adults in U.S. and Canadian Agriculture	15
ARTÍCULO 7: A Pilot Study of Respiratory and Dermal Symptoms in California Cannabis Cultivation Workers.....	17
ARTÍCULO 8: It Takes a Village: A Novel Process for Responding to Emerging Issues in Agricultural Health and Safety	19
JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH, PART B	21
ARTÍCULO 9: Endosulfan use and the risk of thyroid cancer: an ecological study	21
JOURNAL OF SAFETY RESEARCH.....	23
ARTÍCULO 10: Ability of youth operators to reach agricultural all-terrain vehicles controls.....	23

RURAL AND REMOTE HEALTH	25
ARTÍCULO 11: A 'Farmer /Fisherperson and Allied Community Medical' – a quality-improvement template of care.....	25
ARTÍCULO 12: Supporting farmer wellbeing: exploring a potential role for farm advisory staff.....	27
ARTÍCULO 13: Does farming experience matter? A comparison of farm health and safety attitudes, perceptions, and intentions of agricultural science students with and without farming experience	29
SAFETY SCIENCE	31
ARTÍCULO 14: Developing a more engaging safety training in agriculture: Gender differences in digital game preferences.....	31
ARTÍCULO 15: Motivational factors for occupational safety and health improvements: A mixed-method study within the Swedish equine sector	33
AGRICULTURE-BASEL	35
ARTÍCULO 16: Analysis of Rollover Characteristics of a 12 kW Automatic Onion Transplanter to Reduce Stability Hazards	35
WORKPLACE HEALTH & SAFETY.....	37
ARTÍCULO 17: Association Between COPD Symptoms and Psychological Distress Among Farmers	37
ARTÍCULO 18: Effectiveness of Motivational Interviewing in Increasing Use of Hearing Protection Devices Among Agricultural Producers	39
ARCHIVES OF ENVIRONMENTAL & OCCUPATIONAL HEALTH.....	41
ARTÍCULO 19: Pesticide exposure and poisoning in Brazil: Outcome severity, clinical manifestations and management of cases reported to a poison control center	41



THE AUSTRALIAN JOURNAL OF RURAL HEALTH

ARTÍCULO 1:

Farm-related injury deaths in Australia (2001–20)

Objective: To describe the agents, pattern and trends of unintentional farm fatalities in Australia (2001–2020).

Methods: Review of study of National Coronial Information System data.

Design: Descriptive.

Setting: Australia (2001–2020).

Participants: All cases involving fatal work and non-work injury events on a farm.

Main outcome measures: Patterns and agents of injury events, with trends for all-cause deaths based on rates per 10 000 farms and work-related incidents (per 100 000 workers and 1 000 000 h worked).

Results: There were 1584 unintentional farm fatalities (annual mean 79). Two-thirds of cases were work-related (68%). Major agents of injury were farm vehicles (39%) and machinery (26%). Persons aged over 55 years were involved in 58% of all work-related incidents and were significantly more likely to die than younger cohorts when assessed against hours worked. Death rates involving all on-farm fatal incidents (both work and non-work) per 10 000 farms ($p = 0.015$) and work-related rates per 100 000 workers ($p = 0.015$) reduced over the period, with both demonstrating a fluctuating rate. There was no change in the work-related rates when assessed against hours worked ($p = 0.276$).

Conclusion: Over the period, the annualised number of deaths fell by approximately 24% (98–75), with agents of injury remaining similar. General trends suggest a reduction in the overall death rates for work and non-work incidents. However, trends were less apparent when the reduction of farms (~19%), workers (~7%) and hours worked (no change), were accounted for. Targeted approaches are required to stimulate improvements in these preventable incidents.

¿De qué trata este artículo?

Muertes relacionadas con la agricultura en Australia (2001-20)

Se analizaron las muertes accidentales (laborales y no laborales) que tuvieron lugar en granjas australianas entre los años 2001 y 2020. Se revisaron los datos obtenidos del “National Coronial Information System”. Se produjeron un total de 1584 muertes accidentales (media de 79 al año). El 68% fueron de origen laboral, provocadas principalmente por vehículos y maquinaria agrícola. El 58% de los accidentes laborales fueron de trabajadores mayores de 55 años. Se redujo la tasa de mortalidad total durante el período de tiempo estudiado y también disminuyó la que se relacionaba con el trabajo.

AUTORES	<i>Tony Lower, Kerri-Lynn Peachey, Margaret Rolfe</i>
DOI	https://doi.org/10.1111/ajr.12906
PUBLICACIÓN	<i>The Australian Journal of Rural Health, 2023, Volumen 31, Número 1, pp. 52-60</i>

TEMÁTICA: Accidentes y enfermedades laborales

ARTÍCULO 2:

Internal locus of control buffers the impact of daily stressors on Australian Farmers' well-being: A cross-sectional study

Objective: Farmers are prone to poor well-being and are at higher risks of suicide than the general population. The aim of this study was to understand whether the negative impact of daily stressors on Australian farmers' well-being could be buffered through a strong internal locus of control – a strong sense of control over what happens in life.

Methods: Australian farmers self-reported their well-being, daily stress, and locus of control.

Design: Cross-sectional via pen-and-paper survey.

Setting: Participants completed the surveys at the beginning of agricultural management training courses.

Participants: Australian farmers (N = 129, M age = 39 ± 12 years, 54.7% male).

Main Outcome Measures: Internal and external locus of control, daily stress, and subjective well-being.

Results: More daily stressors were associated to poorer well-being, regardless of external locus of control; however, farmers with a stronger internal locus of control were buffered from the negative impacts of daily stressors. That is, daily stressors were not significantly associated with well-being for farmers with a strong internal locus of control.

Conclusions: Internal locus of control may be a significant factor in supporting good well-being for farmers. Further research should investigate how to enhance internal locus of control amongst this population. It may be that interventions to enhance internal locus of control in farmers could improve their well-being and productivity, good outcomes for the individual farmers, and global society overall.

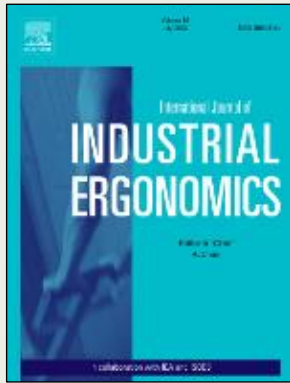
¿De qué trata este artículo?

El locus de control interno amortigua el impacto de los factores estresantes diarios en el bienestar de los agricultores australianos: un estudio transversal

Se estudió si las consecuencias negativas sobre el bienestar de los agricultores australianos, debidas al estrés que sufren a diario, podían contrarrestarse con el locus de control interno (sensación de control de la vida). Se realizó una encuesta a 129 agricultores basada en estos temas (bienestar, estrés diario y locus de control). Un mayor locus de control provocaba que el bienestar del trabajador no se viese afectado por el estrés, lo que podía conllevar también a un aumento de la productividad.

AUTORES	<i>Rachael Smallwood, Adam Curcio, Amanda L. Rebar</i>
DOI	<i>https://doi.org/10.1111/ajr.12948</i>
PUBLICACIÓN	<i>The Australian Journal of Rural Health, 2023, Volumen 31, Número 2, pp. 285-293</i>

TEMÁTICA: Estrés laboral



INTERNATIONAL JOURNAL OF INDUSTRIAL ERGONOMICS

ARTÍCULO 3:

Heat strain while wearing pesticide protective clothing in hot environments: Effects of textile physical properties and ambient humidity

The purpose of this study was to investigate heat strain while wearing pesticide protective clothing (PPC) with different physical properties in hot environments. Eight young males participated in the following three PPC conditions [polyester/cotton work clothing (IT = 1.26 clo, Ret = 42.0 m²·PaW⁻¹), Tyvek coverall (1.16 clo, 47.5 m²·PaW⁻¹), and commonly used nylon suit with a microporous membrane (1.42 clo, 54.1 m²·PaW⁻¹)] and in two environmental conditions (32 °C with 50% RH and 32 °C with 80% RH). All physiological variables (rectal and mean skin temperature, heart rate, and physiological strain index) and most subjective perceptions showed greater values in the 80% RH than in the 50% RH environment (all $p < 0.05$). Physiological burden was greater in the commonly used nylon suit condition than in the polyester/cotton work clothing condition (all $p < 0.05$), but in many variables there were no statistical differences between the Tyvek and nylon suit condition, especially in the 80% RH environment. There were no differences in humidity sensation during exercise among the PPC conditions, whereas, during recovery, subjects felt more humid in the Tyvek or nylon suit than in the polyester/cotton work clothing condition ($p < 0.05$). These results indicate that the 30%-higher humidity induced a greater physiological burden. However, physiological or subjective burden would not always be proportional or inversely proportional to the physical property level of PPC but was affected more by heat exchange modes between the human body and ambient environments.

¿De qué trata este artículo?

Estrés por calor al usar ropa protectora contra pesticidas en ambientes cálidos: efectos de las propiedades físicas textiles y la humedad ambiental

Se evaluó el estrés por calor en ocho trabajadores que utilizaban ropa de protección contra pesticidas. La investigación se realizó para tres casos (ropa de poliéster/algodón, mono Tyvek y traje de nylon con membrana microporosa) y para dos condiciones ambientales (32°C con 50% HR y 32°C con 80% HR). Se recogieron diferentes datos como la frecuencia cardíaca, temperatura media de la piel, etc. Los resultados mostraron que la humedad mayor conducía a una carga fisiológica más elevada. Durante la realización de la actividad no hubo diferencias en la sensación de humedad con los diferentes tipos de ropa, pero durante la recuperación, la sensación fue menor con la de poliéster/algodón.

AUTORES	<i>Do-Hee Kim, Joo-Young Lee</i>
DOI	<i>https://doi.org/10.1016/j.ergon.2022.103388</i>
PUBLICACIÓN	<i>International Journal of Industrial Ergonomics, 2023, Volumen 93, 103388</i>

TEMÁTICA: *Temperatura*

ARTÍCULO 4:

Development of a tractor operator-operation environment coupled biomechanical model and analysis of lower limb muscle fatigue

For the quantitative analysis and evaluation of tractor pedal operation comfort, this study developed a tractor operator-operation environment coupled biomechanical model in AnyBody Modeling System. First, operator model and operation environment model were generated according to Chinese adult male anthropometric dimensions and Dongfanghong LX804 tractor design parameters. To couple these two models, the connections between operator model's palms, feet, pelvis and operation environment model's steering wheel, joystick, pedals, seat were created. The release scheme of limb joint angle constraints was designed, which allowed limbs to fulfill the kinematic requirement of operating devices. Then, to drive the model, a driver device with a rotation angle range of 0° - 42° and a spring with a stiffness of 37.85Nm/rad were added to pedal hinge based on the driving data of pedal force and pedal travel collected by sensors. Subsequently, to validate the model, the surface electromyography signals of lower limb muscles were acquired using the test system of Cometa MiniWave. The average relative error between the lower limb muscle activity calculated from electromyography signals and that computed from the model was 9.2%. Finally, the model was employed to simulate the dynamic process of pedal operation and analyze lower limb fatigue. The results demonstrated that the fatigue exhibited a tendency of first decreasing and then increasing as pedal rotation angle increased, and reached a lower level within the pedal rotation angle range of 8° - 17° .

¿De qué trata este artículo?

Desarrollo de un modelo biomecánico acoplado al entorno de operación-operador de un tractor y análisis de la fatiga muscular de las extremidades inferiores

Se creó un modelo biomecánico (operador-entorno de trabajo) en “AnyBody Modeling System” que recreaba a un trabajador en un tractor con el fin de evaluar la fatiga de las extremidades inferiores durante el uso del pedal. El modelo del trabajador se realizó siguiendo la antropometría de un hombre adulto de origen chino y el modelo del tractor con los parámetros de diseño del “Dongfanghong LX804”. Se conectaron las palmas, pies y pelvis del operario y el volante, palanca de mando, pedales y asiento del vehículo para acoplar ambos modelos. Se tuvieron en cuenta ángulos de las extremidades y se añadió al pedal del tractor un dispositivo impulsor y un resorte según datos recopilados por sensores. Para validar el modelo se llevó a cabo electromiografía de superficie en las extremidades inferiores, comparando los resultados con el modelo. Este último fue empleado finalmente para la simulación del proceso.

AUTORES	<i>Wenjie Zhang, Qichao Wang, Zheng Xu, Yujun Shang, Hongmei Xu</i>
DOI	<i>https://doi.org/10.1016/j.ergon.2022.103407</i>
PUBLICACIÓN	<i>International Journal of Industrial Ergonomics, 2023, Volumen 93, 103407</i>

TEMÁTICA: Vehículos y maquinaria agrícola



INTERNATIONAL JOURNAL OF OCCUPATIONAL SAFETY AND ERGONOMICS

ARTÍCULO 5:

Approach for ergonomic assessment of self-propelled combine harvester seats based on anthropometric body dimensions

Objectives. The seat dimensions of self-propelled combine harvesters are designed without consideration of body dimensions of the user population and vary with make and models of combines. **Methods.** This research proposes a method to determine the percentage of seat match, upper mismatch and lower mismatch using the anthropometric body dimensions of Indian harvester operators. The seat dimensions of five popular combine harvester makes were measured and compared to the body dimensions of the operators. **Results.** The selected seats had 100, 44–70, 81–96, 98–100, 63–83, 59–94 and 55–97% mismatch for seat height, seat length, seat pan breadth, seat backrest height, upper backrest breadth, lower backrest breadth and steering wheel clearance, respectively. These data were used to recommend seat dimensions for combine harvesters. Seat height, seat length, seat pan breadth, seat backrest height, upper backrest breadth, lower backrest breadth and steering wheel clearance are recommended as 399, 362, 456, 400, 243, 386 and 190 mm, respectively. **Conclusions.** The recommended seat dimensions matched the user population anthropometric dimensions 94–100%. This approach will help to assess seat dimensions based on anthropometric data for a comfortable posture to prevent health risks such as musculoskeletal disorders (MSDs) among operators.

¿De qué trata este artículo?

Enfoque para la evaluación ergonómica de asientos de cosechadoras autopropulsadas en función de las dimensiones antropométricas del cuerpo

Las dimensiones de los asientos de cosechadoras autopropulsadas dependen del modelo y fabricante, no contemplando en su diseño las medidas antropométricas de las personas que las utilizan. En este estudio se analizaron y compararon ambas medidas, las de operarios en India y las de asientos de cinco cosechadoras de marcas diferentes, resultando incoherentes. Para prevenir la aparición de trastornos musculoesqueléticos en estos trabajadores se recomendaron medidas para el asiento (altura: 399 mm, longitud: 362 mm y ancho: 456 mm), respaldo (altura: 400 mm, ancho superior: 243 mm, ancho inferior: 386 mm) y distancia al volante (190 mm), coincidiendo entre un 94% y un 100% con las medidas antropométricas de los usuarios.

AUTORES	<i>Prabhakar Shukla, C. R. Mehta, K. N. Agrawal, R. R. Potdar, Manoj Kumar, Karan Singh</i>
DOI	<i>https://doi.org/10.1080/10803548.2022.2038460</i>
PUBLICACIÓN	<i>International Journal of Occupational Safety and Ergonomics, 2023, Volumen 29, Número 1, pp. 282-293</i>

TEMÁTICA: Vehículos y maquinaria agrícola



JOURNAL OF AGROMEDICINE

ARTÍCULO 6:

Self-reported Quad Bike Use, Safety Behaviors, and Safety Awareness among Young Adults in U.S. and Canadian Agriculture

The number of agricultural fatalities and injuries related to agricultural quad bike use has risen substantially in the last two decades. Safe engineering design features such as crush protection and roll bars have proven potential to lessen the burden of injury but have traditionally not been included in many quad bike safety training programs. The aim of this study was to survey more than 700 young adults working in U.S. and Canadian agriculture to examine self-reported quad bike safety behaviors and awareness of quad bike safety design engineering features. We found that U.S. males continue to be at higher risk for quad bike-rollover incidents when compared to other groups. Even when accounting for other factors such as age and country, we found that participants who reported youth occupational quad bike use (≤ 14 years old) were up to 200% more likely to allow extra riders and up to 489% more likely to not wear a helmet when compared to participants who reported beginning occupational quad bike use in adulthood. These findings support the Agricultural Youth Work Guideline (AYWG) for occupational quad bike use at age 16. Less than 20% of young adults working in agriculture were aware of safe design features such as wide frames, stability ratings, crush protection devices, and accessories made by the original equipment manufacturer. There is tremendous need to educate the future agricultural workforce about the importance of choosing quad bikes with safer design features.

¿De qué trata este artículo?

Uso autoinformado de “quad”, comportamientos de seguridad y concienciación sobre la seguridad entre adultos jóvenes en la agricultura de EE. UU. y Canadá

En los últimos 20 años ha incrementado el número de lesiones y muertes derivadas del uso de vehículos agrícolas de cuatro ruedas. En esta investigación se realizaron encuestas a más de 700 trabajadores de este sector en EE.UU. y en Canadá para identificar sus conocimientos sobre seguridad en el uso de estos vehículos, teniendo en cuenta también el factor edad. Entre otras conclusiones, se determinó que un porcentaje inferior al 20% de los agricultores jóvenes poseían conocimientos sobre características seguras de diseño, estabilidad, protección contra atrapamientos, etc.

AUTORES	<i>Jenna L. Gibbs, Carolyn E. Sheridan, Aaron Yoder, Cheryl Beseler, Risto Rautiainen</i>
DOI	<i>https://doi.org/10.1080/1059924X.2022.2141408</i>
PUBLICACIÓN	<i>Journal of Agromedicine, 2023, Volumen 28, Número 1, pp. 18-27</i>

TEMÁTICA: Vehículos y maquinaria agrícola

ARTÍCULO 7:**A Pilot Study of Respiratory and Dermal Symptoms in California Cannabis Cultivation Workers**

Cannabis (*Cannabis sativa*, marijuana) is the largest cash crop in California. While it is difficult to characterize the size of the industry, the total production is estimated at 15 to 16 million pounds per year, with total revenues exceeding \$10 billion per year. Despite the huge size and rapid growth of the industry, there has been little research on the health and safety of cannabis workers. The goal of this pilot study was to explore the feasibility of collecting cannabis worker health data with a self-administered survey and to analyze the first systematically collected data on occupational health symptoms among California cannabis cultivation workers. We performed a cross-sectional survey of demographic and job characteristics as well as eye, nasal, respiratory, and dermal symptoms among 29 workers at two cannabis farms in the Sacramento area, California. Most participants were men aged less than 30 years, with 48% of participants self-identifying as non-Hispanic white and 58% reporting at least some college education. The most frequently reported work-related symptom was nasal irritation, and 38% of the participants reported symptoms suggestive of asthma. The participants had a demographic makeup distinct from traditional California agricultural workers, and a very high prevalence of current use of cannabis (93%). The high proportion of respondents with symptoms suggestive of asthma raises concern; sensitization to the cannabis plant has been reported among cannabis workers and users and there are many well-documented agricultural exposures causing asthma and asthma-like syndrome.

¿De qué trata este artículo?

Un estudio piloto de síntomas respiratorios y dérmicos en trabajadores de cultivo de cannabis en California

El cultivo de cannabis en California cuenta con una gran producción anual, sin embargo, es escasa la investigación relacionada con la seguridad y salud de sus trabajadores. Se llevó a cabo una encuesta a 29 operarios de dos cultivos en Sacramento. Se incluyeron características laborales, demográficas, síntomas respiratorios, dérmicos, nasales y oculares. Los resultados mostraron que el 38% de los encuestados tenía síntomas relacionados con asma, pero la molestia más común fue la irritación nasal.

AUTORES	<i>Stella Beckman, Chelsea Eastman Langer, Marc B Schenker</i>
DOI	<i>https://doi.org/10.1080/1059924X.2022.2141407</i>
PUBLICACIÓN	<i>Journal of Agromedicine, 2023, Volumen 28, Número 1, pp. 28-35</i>

TEMÁTICA: Seguridad y salud general

ARTÍCULO 8:

It Takes a Village: A Novel Process for Responding to Emerging Issues in Agricultural Health and Safety

Agricultural and food production systems are constantly evolving in response to societal and environmental factors. These sectors are also laden with occupational hazards, creating an opportunity for emerging and re-emerging issues such as emerging markets and changing worker demographics. The Upper Midwest is a region of intensive agricultural production, with many states leading the United States in livestock and crop production. As a National Institute of Occupational Safety and Health Center for Agricultural Safety and Health, the Upper Midwest Agricultural Safety and Health Center (UMASH) is tasked with protecting the health and safety of the region's agricultural workers. UMASH implements an Emerging Issues program to effectively respond to emerging and re-emerging issues impacting agricultural health and safety in the Upper Midwest. To direct such work, UMASH developed a novel Selection, Planning and Action Process Model. This model guides all stages of the UMASH Emerging Issues response and emphasizes the ongoing need for monitoring, evaluation, and feedback from agricultural communities. In conjunction with the UMASH Process Model, the International Association for Public Participation (IAP2) Spectrum of Public Participation frames the work of the Emerging Issues Program in meaningfully engaging the community of stakeholders across all stages.

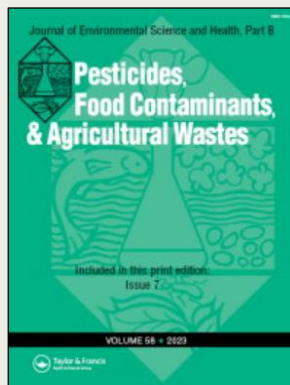
¿De qué trata este artículo?

Se necesita una comunidad agrícola: un proceso novedoso para responder a los problemas emergentes en salud y seguridad agrícola

El norte del Medio Oeste (EE.UU.) tiene una gran producción agrícola y ganadera. El “Upper Midwest Agricultural Safety and Health Center” es el encargado de velar por la seguridad y salud de los trabajadores de este sector. Para ello, este centro creó un modelo de procesos de selección, planificación y acción, con el fin de dar respuesta a los problemas emergentes.

AUTORES	<i>Megan Schossow, Devon Charlier, Suness Hall, Jeff Bender</i>
DOI	<i>https://doi.org/10.1080/1059924X.2022.2147114</i>
PUBLICACIÓN	<i>Journal of Agromedicine, 2023, Volumen 28, Número 1, pp. 36-41</i>

TEMÁTICA: Seguridad y salud general



JOURNAL OF ENVIRONMENTAL SCIENCE AND HEALTH, PART B

ARTÍCULO 9:

Endosulfan use and the risk of thyroid cancer: an ecological study

Endosulfan, an organochlorine pesticide, has been understudied in the literature on thyroid cancer. The aim of this ecological study was to assess the correlation between endosulfan exposure and thyroid cancer incidence rates (IRs) in the United States (US). Age-adjusted thyroid cancer IRs per 100,000 people per state for the years 1999 to 2019 were obtained from the Center for Disease Control and Prevention (CDC). To assess the state-level use of endosulfan, data were obtained from the US Geological Survey (USGS). Endosulfan usage estimates (kilograms/acres cropland; quintiles) and thyroid cancer IRs were mapped together. The correlation between age-adjusted thyroid cancer IRs and statewide endosulfan use was calculated using the Spearman correlation. Overall endosulfan usage in the US trended downwards between 1992 and 2007 ($T = -0.77$; $P < 0.001$), while thyroid cancer IR trended upwards between 1999 and 2019 ($T = 0.69$; $P < 0.001$). There was a statistically significant correlation between 1992 endosulfan use and 2012 ($r = 0.32$; $P = 0.03$) and 2014 ($r = 0.32$; $P = 0.03$) thyroid cancer IRs. Although restrictions on endosulfan use seem effective, the potential impact of endosulfan exposure remains due to the persistent, semi-volatile, bioaccumulative, and biomagnifying properties of endosulfan metabolites in particular, indicating the need for future thyroid research of highly exposed populations.

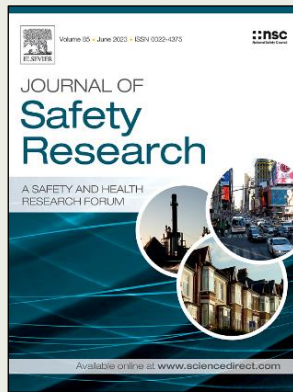
¿De qué trata este artículo?

Uso de endosulfán y riesgo de cáncer de tiroides: un estudio ecológico

Se analizó si existía relación entre la utilización del pesticida endosulfán y el cáncer de tiroides en EE.UU. Los datos relativos a la tasa de incidencia de esta enfermedad se obtuvieron del “Center for Disease Control and Prevention” (englobando el período de tiempo de 1999 a 2019) y los del uso de endosulfán de “US Geological Survey”. Tras un análisis estadístico se concluyó una correlación significativa entre la utilización del pesticida en 1992 y la tasa de incidencia del cáncer de tiroides de 2012 y 2014.

AUTORES	<i>Vikram Vasan, Mathilda Alsen, Dragan Vujovic, Eric Genden, Catherine Sinclair, Maaïke van Gerwen</i>
DOI	<i>https://doi.org/10.1080/03601234.2023.2169099</i>
PUBLICACIÓN	<i>Journal of Environmental Science and Health, Part B, 2023, Volumen 58, Número 1, pp. 51-57</i>

TEMÁTICA: Pesticidas



JOURNAL OF SAFETY RESEARCH

ARTÍCULO 10:

Ability of youth operators to reach agricultural all-terrain vehicles controls

Problem: Utility All-Terrain Vehicles (ATVs) are one major cause of youth injuries and fatalities on farms. Utility ATVs have heavy weights and fast speeds that require complex maneuvering. Youth's physical capabilities may not be sufficient to perform those complex maneuvers correctly. Therefore, it is hypothesized that most youth engage in ATV-related incidents because they ride vehicles unfit for them. There is a need to assess ATV-youth fit based on youth anthropometry. **Method:** This study focused on evaluating potential inconsistencies between the operational requirements of utility ATVs and the anthropometric measures of youth through virtual simulations. Virtual simulations were performed to assess 11 youth-ATV fit guidelines proposed by several ATV safety advocacy organizations (National 4-H council, CPSC, IPCH, and FReSH). In total, 17 utility ATVs along with male-and-female-youth of nine ages (8 to 16 years old) and three height percentiles (5th, 50th, and 95th) were evaluated. **Results:** The results demonstrated a physical mismatch between ATVs' operational requirements and youth's anthropometry. For example, male-youth aged 16 of the 95th height percentile failed to pass at least 1 out of the 11 fit guidelines for 35 % of all vehicles evaluated. The results were even more concerning for females. Female youth 10 years old and younger (from all height percentiles) failed to pass at least one fit guideline for all ATVs evaluated. **Discussion:** Youth are not recommended to ride utility ATVs. Practical **Applications:** This study provides quantitative and systematic evidence to modify current ATV safety guidelines. Furthermore, youth occupational health professionals could use the present findings to prevent ATV-related incidents in agricultural settings.

¿De qué trata este artículo?

Capacidad de los operarios jóvenes para llegar a los controles de los vehículos agrícolas todoterreno

Los vehículos todoterreno utilizados en agricultura requieren la realización de maniobras complejas debido a sus características. Son una causa frecuente de lesiones y muertes de origen laboral. Este estudio analiza si los jóvenes pueden estar altamente expuestos a este riesgo debido a sus medidas antropométricas en relación a los vehículos empleados. Se realizaron simulaciones de tipo virtual para estudiar 11 pautas de adaptación para estos trabajadores a este tipo de vehículos. Se utilizaron 17 vehículos y los participantes fueron jóvenes de entre 8 y 16 años, hombres y mujeres, de tres percentiles de altura diferentes. Los resultados afirmaron una diferencia entre los requisitos físicos de los vehículos y la antropometría de los jóvenes. Uno de los datos más preocupantes indicó que las mujeres, de 10 años o menores y para cualquier altura, no superaron ninguna de las 11 pautas de adaptación en los vehículos analizados. Se concluyó que los jóvenes no deben utilizar estos vehículos. Es importante aplicar medidas para prevenir accidentes de este tipo en el sector agrícola.

AUTORES	<i>Guilherme De Moura Araujo, Farzaneh Khorsandi Kouhanestani, Fadi A. Fathallah</i>
DOI	<i>https://doi.org/10.1016/j.jsr.2022.11.010</i>
PUBLICACIÓN	<i>Journal of Safety Research, 2023, Volumen 84, pp. 353-363</i>

TEMÁTICA: Vehículos y maquinaria agrícola



RURAL AND REMOTE HEALTH

ARTÍCULO 11:

A 'Farmer /Fisherpersion and Allied Community Medical' – a quality-improvement template of care in primary care

Introduction and Background: Ireland is an island known for its welcome, its warm people, green fields and beautiful coastline. A sizable proportion of the Irish population work in the farming, forestry and fishing industries, particularly in rural and coastal regions. The broad farming and fisher people cohort have specific health and primary care needs and, as a result, I devised a template of care provision in primary care, to help guide the primary care team privileged to look after this unique group of people.

Aims: **1** To devise a template of proposed quality care or care considerations for members of the farming and fisher people community, which can be used in general practice, as part of the practice software system. **2** To improve and ease delivery of high-quality primary care to the farming and fisher people in the community.

Methods: **1** Personal reflection on my professional experience as a General Practitioner in rural and coastal communities from South West GP (General Practitioner) Training Scheme training to the current time, a lifetime of living in a rural location not too far from the sea, and the lessons I have learnt from the people of home, my local community, and the people I serve. **2** Conversation with and feedback from a wise, retired farmer with thanks. **3** Literature Review of the health concerns and needs of farmers and fisher people.

Results: Creation of a farmer/fisherperson medical quality-improvement template of care to support primary care delivery to these communities.

Discussion: **1** A template of care provision for primary care to utilise if wished in caring for members of the fishing and farming communities to improve quality of care delivered, and which is accessible, user-friendly, and comprehensive. **2** Plan to hopefully trial this template in primary care going forward, and audit the primary healthcare quality received by farmers and members of the fishing community, based on the parameters included in this quality improvement template.

¿De qué trata este artículo?

Un “agricultor/pescador y un médico comunitario aliado” – una plantilla para mejorar la calidad del cuidado en atención primaria

En Irlanda, un gran número de trabajadores se dedican a actividades agrícolas, forestales y pesqueras. El objetivo de este estudio fue mejorar la prestación de atención primaria a estos trabajadores y diseñar una plantilla de atención de calidad para integrar en el software empleado. Se llevó a cabo una revisión de información sobre la salud del personal perteneciente a este sector, se realizó una reflexión personal desde el punto de vista médico en este entorno y se recogió la experiencia personal de un agricultor jubilado. Este modelo para mejorar la atención en el ámbito de la salud a los trabajadores de este sector debe ser sencillo y de fácil acceso.

AUTORES	<i>Ann D Kiely</i>
DOI	<i>https://doi.org/10.22605/RRH8120</i>
PUBLICACIÓN	<i>Rural and Remote Health, 2023, Volumen 23, Número 1, pp. 8120</i>

TEMÁTICA: *Atención sanitaria*

ARTÍCULO 12:

Supporting farmer wellbeing: exploring a potential role for farm advisory staff

Introduction: Farmers in Ireland experience poor health outcomes and are considered 'hard to reach'. Agricultural advisors ('advisors') are uniquely positioned to support and signpost farmers on health issues. This paper explores the acceptability and terms of reference of a potential health role for advisors, and offers key recommendations for developing a bespoke farmers' health training programme.

Methods: Following ethical approval, eleven focus groups (n=26 female, n=35 male, age-range 20s–70s) were conducted with farmers (n=4), advisors (n=4), farming organisations (n=2) and farmers' 'significant others' (n=1). Utilizing Thematic Content Analysis, transcripts were coded iteratively and emerging themes were grouped into primary and subthemes.

Results: Our analysis identified three themes. 'Scope and acceptability of a potential health role for advisors' examines how participants envision and are receptive to such a role. 'Roles, responsibilities and boundaries' considers both a health promotion and 'health connector' advisory role – normalising health conversations and signposting farmers to services/supports. Finally, 'troubleshooting potential obstacles to advisors assuming a health role' reflects on the barriers that may impede advisors capacity or potential to have a broader health role.

Discussion: Within the context of the stress process theory, findings provide unique insights into how advisory can mediate stress and contribute to farmers' health and wellbeing. Finally, findings have important implications for potentially extending the reach of training to other aspects of farming support services (eg agri-banking, agri-business, veterinary services etc.), as well as serving as a springboard for the development of similar initiatives in other jurisdictions.

¿De qué trata este artículo?

Apoyar el bienestar de los agricultores: explorar un papel potencial para el personal asesor agrícola

Asesores agrícolas pueden orientar e informar sobre salud a los trabajadores de este sector. Se comprueba la aceptación de la función de los asesores y se presentan recomendaciones para crear programas de formación en relación a la salud de los trabajadores. Participaron 11 grupos focales con agricultores, asesores, organizaciones agrícolas y personas relevantes de los agricultores y se analizó la información obtenida. Los resultados mostraron que había una buena respuesta a la función sanitaria de los asesores, para la promoción y apoyo de la salud. La función del asesor puede mejorar la salud de los agricultores y disminuir el estrés que estos sufren.

AUTORES	<i>Conor Hammersley, Noel Richardson, David Meredith, Paula Carroll, John McNamara</i>
DOI	<i>https://doi.org/10.22605/RRH8138</i>
PUBLICACIÓN	<i>Rural and Remote Health, 2023, Volumen 23, Número 1, pp. 8138</i>

TEMÁTICA: Atención sanitaria

ARTÍCULO 13:

Does farming experience matter? A comparison of farm health and safety attitudes, perceptions, and intentions of agricultural science students with and without farming experience

Introduction: This study addresses two main questions: 'How does having the experience of farming influence college students' intrinsic motivations towards farm health and safety (FHS)?' and 'Are there any differences between the motivations reported by students with and without having such experience?'. This study seeks to investigate the role of farming experience in students' cognitive factors and intentions to evaluate whether sharing experiences and stories positively shape students' cognitive factors to perform FHS behaviours.

Methods: A cross-sectional online survey using a semi-structured questionnaire was assigned to a nationally representative sample of agricultural science students in Ireland (n= 430). Applying independent sample t-test and ANOVA test, multiple comparisons were made to examine if having the experience of farming affects FHS intrinsic motivations.

Results: This study illustrated students without farming experience are less likely to perceive farming as a dangerous occupation while they reported a slightly positive attitude and intention compared with their counterparts with experience of farming. Our study illustrated students with experience of farming gave a lower priority to FHS and control over safety behaviour (pessimistic approach) and they reported a slightly higher level of risk perception (optimistic perception).

Discussion: Having experience of farming (destructive experience – the experience of farming without having a near miss or injury or having heard of accidents, ie negative factors affecting students' motivations) may not be necessarily a positive factor as risk-taking is admitted as a norm and a part of the nature of the work. Conversely, having experience of FHS issues (constructive experience – any kind of farming experience that positively shapes students' motivations towards FHS) can positively shape attitude, perceptions, and intention. Therefore, we recommend that constructive experiences (positive affecting intrinsic motivations) should be incorporated into the FHS training of students through peer-to-peer sharing as this enhances attitudes, perceptions, and willingness of the majority of students.

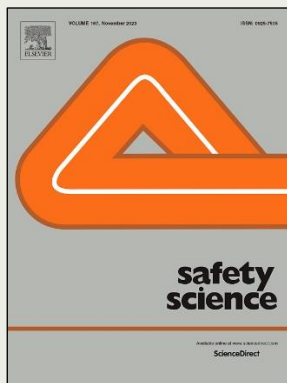
¿De qué trata este artículo?

¿Importa la experiencia agrícola? Una comparación de las actitudes, percepciones e intenciones sobre seguridad y salud en agricultura de estudiantes de ciencias agrícolas con y sin experiencia agrícola

Se realizó una encuesta online a 430 estudiantes de ciencias agrícolas de Irlanda. Se aplicaron herramientas estadísticas con el fin de comprobar si la experiencia agrícola influye en la motivación intrínseca de los estudiantes relativa a la seguridad y salud en agricultura. Los resultados mostraron que los estudiantes sin experiencia tenían una probabilidad menor de percibir la agricultura como un trabajo con riesgo, siendo mayor en los que sí tenían experiencia. Sin embargo, estos últimos daban menos importancia a la seguridad y salud en el trabajo y a su control.

AUTORES	<i>Mohammad Mohammadrezaei, David Meredith, Sinéad Flannery, Jim Kinsella, John McNamara</i>
DOI	<i>https://doi.org/10.22605/RRH8165</i>
PUBLICACIÓN	<i>Rural and Remote Health, 2023, Volumen 23, Número 1, pp. 8165</i>

TEMÁTICA: Seguridad y salud general



SAFETY SCIENCE

ARTÍCULO 14:

Developing a more engaging safety training in agriculture: Gender differences in digital game preferences

Digital games have been effectively used in different working sectors as an occupational safety training method but they are still overlooked in agriculture, despite the high hazardousness of this industry. At the same time, the gender issue is becoming more and more relevant both in the digital game and agricultural fields because of an increasing number of females, both among the agricultural operators and the game players. Based on these considerations, our study aimed at investigating gender differences in the preference for different game characteristics to point out which aspects of a new game for safety training purposes in agriculture may appeal to both male and female operators and which aspects need instead a careful design and high levels of customization, to be equally appreciated by both genders. An online questionnaire was administered to a group of Italian Agricultural Science university students (N = 137, 65% males and 35% females) to investigate their game preferences, in terms of game characteristics, genre and graphic style. Some clear differences (in tasks, quests, rules, and goals, colors and variety), and similarities (in graphics, drama, better rewards and game genre) emerged in males' and females' preferences. Based on these results, some practical guidelines are provided for the design of a gamified safety training tool which can appeal to and be considered engaging by both genders.

¿De qué trata este artículo?

Desarrollar una formación en seguridad más atractiva en la agricultura: diferencias de género en las preferencias de juegos digitales

Los juegos digitales son utilizados para formaciones sobre seguridad en el trabajo en diferentes sectores. El objetivo de este estudio fue analizar las preferencias para un juego de este tipo en trabajadores de ambos sexos pertenecientes al sector de la agricultura. Para ello, se llevó a cabo un cuestionario online a 137 estudiantes universitarios de ciencias agrícolas de Italia, siendo un 65% hombres y un 35% mujeres. Se encontraron diferencias entre mujeres y hombres en objetivos, colores, reglas, etc. y similitudes en gráficos, recompensas, etc. Tras dicho estudio se realizaron recomendaciones para diseñar un juego orientado a la formación en seguridad laboral que llame la atención tanto de agricultores como de agricultoras.

AUTORES	<i>Lucia Vigoroso, Federica Caffaro, Margherita Micheletti Cremasco, Eugenio Cavallo</i>
DOI	<i>https://doi.org/10.1016/j.ssci.2022.105974</i>
PUBLICACIÓN	<i>Safety Science, 2023, Volumen 158, 105974</i>

TEMÁTICA: Formación

ARTÍCULO 15:

Motivational factors for occupational safety and health improvements: A mixed-method study within the Swedish equine sector

A well-functioning systematic occupational safety and health management is beneficial for both individuals and organizations, and employee motivation seems to be crucial for positive outcomes. Occupational safety and health issues are a major concern for the Swedish equine sector since the work environment in horse stables is known to be characterized by low mechanization, high physical workloads, and high injury risks. The purpose of this study was to gain an increased understanding of how systematic occupational safety and health management is performed and which factors that influence motivation for occupational safety and health improvements in the Swedish equine sector. An explanatory sequential mixed-methods study, based on quantitative data from questionnaires and qualitative data from semi-structured interviews, was conducted. Various statistical analyses were performed to obtain quantitative data and an abductive applied thematic analysis was applied for the qualitative data. The results indicate that both intrinsic motivators, i.e. attitudes, values, and influence, as well as contextual factors such as motivational management, occupational culture, and workplace resources, influence compliance in systematic occupational safety and health management and participation in occupational safety and health improvements, which in turn affect workplace outcomes regarding safety and health. The positive relationship found between an implemented and functioning systematic occupational safety and health management and employee motivation for occupational safety and health improvements indicate the importance of employee involvement and participation. Understanding the motivational factors for occupational safety and health improvements from an employee perspective is an important step to creating healthy and sustainable workplaces.

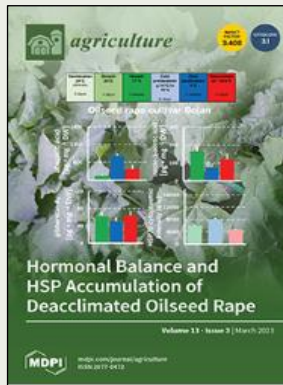
¿De qué trata este artículo?

Factores motivacionales para mejorar la seguridad y la salud en el trabajo: un estudio de métodos mixtos en el sector equino sueco

En Suecia los establos de caballos cuentan con poca mecanización, mucho trabajo físico y una gran exposición a riesgo de lesión. Se analizó la forma de gestionar la seguridad y salud en el trabajo en este sector y se identificaron los factores que pueden afectar a la motivación de los trabajadores para mejorarla. Se obtuvieron datos cuantitativos (uso de cuestionarios) y cualitativos (realización de entrevistas). Los motivadores intrínsecos, factores contextuales, gestión motivacional, cultura ocupacional y recursos en el lugar de trabajo influían en la gestión sistemática de la seguridad y salud y en la participación para su mejora. Conocer los factores motivacionales desde el punto de vista de los trabajadores es relevante para lograr entornos de trabajo seguros.

AUTORES	<i>Åsa Bergman Bruhn, Cecilia Lindahl, Ing-Marie Andersson, Gunnar Rosén</i>
DOI	<i>https://doi.org/10.1016/j.ssci.2022.106035</i>
PUBLICACIÓN	<i>Safety Science, 2023, Volumen 159, 106035</i>

TEMÁTICA: Seguridad y salud general



AGRICULTURE-BASEL

ARTÍCULO 16:

Analysis of Rollover Characteristics of a 12 kW Automatic Onion Transplanter to Reduce Stability Hazards

The rollover tendency of upland farm machinery needs to be carefully considered because upland crop fields are typically irregular, and accidents frequently result in injuries and even death to the operators. In this study, the rollover characteristics of an underdeveloped 12 kW automatic onion transplanter were determined theoretically and evaluated through simulation and validation tests considering the mounting position of the transplanting unit and load conditions. The center of gravity (CG) coordinates for different mass distributions, and static and dynamic rollover angles were calculated theoretically. Simulation and validation tests were conducted to assess the static rollover angle under different mounting positions of the transplanting unit and load conditions of the onion transplanter. The dynamic rollover tendency was evaluated by operating the onion transplanter on different surfaces and at different speeds. According to the physical properties and mass of the onion transplanter, the theoretical rollover angle was 34.5° , and the coordinates of the CG gradually moved back to the rear wheel axle after attaching the transplanting part and under upward riding conditions. The average simulated rollover angle was 43.9° . A turning difference of 4.5° was observed between the right and left sides, where a 3° angle difference occurred due to the load variation. During the dynamic stability test, angle variations of $2\sim 4^\circ$ and $3\sim 6^\circ$ were recorded for both high and low driving speeds in the vehicle platform and transplanting unit, respectively. The overturning angles also satisfied the ISO standard. This study provides helpful information for ensuring the safety of upland crop machinery operating under rough and sloped field conditions.

¿De qué trata este artículo?

Análisis de las características de vuelco de una trasplantadora automática de cebollas de 12 kW para reducir los riesgos de estabilidad

El uso de maquinaria agrícola expone a los trabajadores a riesgo de lesiones y accidentes. Se estudiaron los aspectos relativos al vuelco de una trasplantadora automática de cebollas de 12 kW. Se realizó el cálculo teórico de las coordenadas del centro de gravedad (para diferentes casos) y los ángulos de vuelco (estáticos y dinámicos). Se empleó la simulación y validación para analizar el ángulo estático en varias posiciones de montaje y diversas condiciones de carga. Se utilizó la trasplantadora en varias superficies y distintas velocidades con el fin de evaluar la tendencia dinámica al vuelco. Entre otros resultados, el ángulo de vuelco teórico obtenido fue 34,5° y el simulado promedio fue 43,9°.

AUTORES	<i>Milon Chowdhury, Mohammad Ali, Eliezel Habineza, Md Nasim Reza, Md Shaha Nur Kabir, Seung-Jin Lim, Il-Su Choi, Sun-Ok Chung</i>
DOI	<i>https://doi.org/10.3390/agriculture13030652</i>
PUBLICACIÓN	<i>Agriculture-Basel, 2023, Volumen 13, Número 3, 652</i>

TEMÁTICA: Vehículos y maquinaria agrícola



WORKPLACE HEALTH & SAFETY

ARTÍCULO 17:

Association Between COPD Symptoms and Psychological Distress Among Farmers

Background: Farmers have an increased risk of developing chronic obstructive pulmonary disease (COPD) and psychological distress. The potential role of psychological distress in worsening COPD symptoms has been reported among the general population, but no studies have examined this relationship among farmers with COPD, which is the purpose of this study.

Methods: This study used the data from the 2017 Behavioral Risk Factor Surveillance System (BRFSS). Farmers reporting both psychological distress and COPD symptoms were included in this study ($n = 239$). Both unadjusted and adjusted logistic regressions were used to explore the association among psychological distress, age, health status, smoking, and COPD symptoms, with crude and adjusted odds ratio (OR) and 95% CIs reported.

Findings: The unadjusted analysis suggested that COPD symptoms were significantly associated with psychological distress among farmers (OR = 2.05 [1.18, 3.58]). While adjusted models showed the significant association between COPD symptoms and psychological distress among farmers after controlling for smoking, age, and health status (adjusted OR = 2.08 [1.10, 4.01]).

Conclusion/Implications for Practice: These results suggest that psychological distress is associated with an increased risk of COPD symptoms in farmers, which is consistent with observations from studies in non-farmers. Occupational health professionals need to provide screen for COPD among farmers as well as psychological distress screening and mental health promotion among farmers with COPD.

¿De qué trata este artículo?

Asociación entre los síntomas de la EPOC y la angustia psicológica entre los agricultores

Se investigó la relación entre la angustia psicológica y la Enfermedad Pulmonar Obstructiva Crónica (EPOC) en trabajadores de la agricultura. Se obtuvieron y analizaron datos de 239 personas que tenían síntomas de ambas en 2017. Se concluyó que la angustia psicológica se relaciona con un riesgo mayor de EPOC en agricultores, lo que coincide con investigaciones realizadas en trabajadores de otros sectores.

AUTORES	<i>Prasert Kham-ai, Karen Heaton, Peng Li</i>
DOI	<i>https://doi.org/10.1177/21650799221113057</i>
PUBLICACIÓN	<i>Workplace Health & Safety, 2023, Volumen 71, Número 2, pp. 89-95</i>

TEMÁTICA: *Accidentes y enfermedades laborales*

ARTÍCULO 18:

Effectiveness of Motivational Interviewing in Increasing Use of Hearing Protection Devices Among Agricultural Producers

Background: Agricultural producers are frequently exposed to noise that is hazardous to their hearing and cardiovascular health, and have among the highest rates of noise-induced hearing loss of all occupations. However, despite information-sharing approaches, few producers wear sufficient hearing protection. There is a need to develop effective methods of protecting producers from their noise exposure.

Methods: We provided a series of 2 to 3 short (30-minute) telephone-based motivational interviewing (MI) sessions to noise-exposed agricultural producers. We assessed intervention effectiveness through changes in measuring hearing protector use pre- and post-intervention using a one-group pre/posttest design.

Results: The sample (N = 29) predominantly consisted of crop producers from Michigan. The mean percentage of time hearing protection was used increased from 44.9% to 51.8% after the intervention, approximately a 7% increase ($p = .105$). Regression analysis suggested the relationship between intervention dose and use of hearing protection was not correlative.

Discussion/Conclusion: There was a marginal increase in the use of hearing protection after the intervention, although setting-specific increases in use were uneven. Intervention dose did not correlate with a change in hearing protection use. Further research is warranted to determine the effectiveness of MI, how it compares to information sharing, and to identify intervention dose parameters that promote efficiency.

¿De qué trata este artículo?

Efectividad de las entrevistas motivacionales para aumentar el uso de dispositivos de protección auditiva entre los productores agrícolas

Los agricultores se exponen a ruidos perjudiciales para su audición y salud cardiovascular, por lo que se deben adoptar medidas para su protección. Se realizaron entrevistas motivacionales por teléfono a 29 agricultores que se exponían a ruido, basadas en dos o tres sesiones cortas, de 30 minutos. Tras esta intervención se demostró, entre otras cosas, que el tiempo en el que se empleaba protección auditiva aumentó casi un 7%.

AUTORES	<i>Keane L. Trautner, Laura J. Ridge, Nathan J. Stefanovsky, Philip Veliz, Marjorie C. McCullagh</i>
DOI	<i>https://doi.org/10.1177/21650799221139996</i>
PUBLICACIÓN	<i>Workplace Health & Safety, 2023, Volumen 71, Número 3, pp. 130-136</i>

TEMÁTICA: *Exposición*



ARCHIVES OF ENVIRONMENTAL & OCCUPATIONAL HEALTH

ARTÍCULO 19:

Pesticide exposure and poisoning in Brazil: Outcome severity, clinical manifestations and management of cases reported to a poison control center

This work aimed to identify variables associated with increased risk of outcome severity as well as to describe clinical manifestations/symptoms and management of pesticide-related cases reported to a poison center in Brazil. An increased risk of more severe outcomes was observed when exposures occurred in rural areas, involved suicide attempts and moderately to extremely hazardous pesticides. Clinical manifestations with higher frequencies included vomiting, nausea, sialorrhea, headache, miosis and sweating. From the treatment initially applied to the patient, 51.91% encompassed gastric lavage, but this procedure was only recommended in 20.01% of cases by the CIATox. Identifying risk factors associated with poor outcome, describing clinical manifestations, and contrasting initial treatment measures adopted against those recommended by the Poison Center can help determine diagnosis, prognosis and ensure appropriate clinical interventions are used in cases of pesticide poisoning.

¿De qué trata este artículo?

Exposición e intoxicación por pesticidas en Brasil: gravedad de los resultados, manifestaciones clínicas y manejo de los casos notificados a un centro de control de intoxicaciones

Este trabajo se centró en el riesgo procedente de exposición a pesticidas, los síntomas que aparecían y las intoxicaciones que habían sido notificadas en un centro de Brasil. Las consecuencias de las exposiciones fueron más graves en áreas rurales, cuando se trataba de intento de suicidio y con pesticidas más perjudiciales. Entre los síntomas más comunes estaban las náuseas, vómitos, cefalea, sudoración, etc. Se concluyó la importancia de emplear intervenciones clínicas acordes a la intoxicación por pesticidas

AUTORES	<i>Josefa Cristina Pereira dos Santos, Joanina Bicalho Valli, Nixon Souza Sesse, Sarah Mackenzie Ross, Eliana Zandonade, Lorena Rocha Ayres, Karla Nívea Sampaio</i>
DOI	<i>https://doi.org/10.1080/19338244.2022.2161456</i>
PUBLICACIÓN	<i>Archives of Environmental & Occupational Health, 2023, Volumen 78, Número 3, pp. 177-186</i>

TEMÁTICA: Pesticidas