Global Agronomy Research Journal

Those Donut Standard for Farming Lecturer Benefit: A Model for Belief and Exercise

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Article Info

ISSN (online): 3049-0588

Volume: 01 Issue: 06

November-December 2024

Received: 08-09-2024 **Accepted:** 09-10-2024

Page No: 16-21

Abstract

This hypothetical script accepts the three-circle model for land instruction as an lasting guide for junior progress. To complement the three-circle model, authors suitable "donut commerce" to art the donut model for farming assistant gain. Inside the projected model, scholar happiness is delineated as a level of output that endures middle from two points educator- labeled lower bounds (that is, levels of output that minimally meet their description of "profit") and superior bounds (that is, levels of output surpassing limits constituted by added work and history accountabilities). In addition, professor gain contains bearing sufficient border 'tween lower and superior bounds, giving adaptable and deliberate distribution momentary, strength, and feeling across work and existence ranges for the improvement of self, pupils, and humankind. Linkages middle from two points the projected model, scholar vindication, scholar memory, and lecturer regret are more investigated, suggesting the model concede possibility notify continuous works to address the maintained farming professor deficiency. The script decides by investigating the experienced serviceableness of the donut model for farming educator gain, foregrounding by means of what farming schoolteachers can cultivate, judge, and correspond their own donut model.

Keywords: borderlines, donut model for farming educator benefit, professor regret, professor deficiency, three-circle model of land instruction, work-existence balance

1. Introduction

Land instruction is usually presented as a Venn drawing of three coinciding circles: (a) homeroom and lab education, (b) directed land happening (SAE), and (c) guidance growth through partnership in the Communal FFA Arrangement (Talbert and others., 2022) ^[6]. This drawing has happened named the "three-circle model." Scientist have depicted the duty of the three-circle model as the "abstract basis," (Jenkins III, 2008, p. 4) ^[5], "guide" (Croom, 2008, p. 117) ^[9], and "individual of the generally acknowledged companies" (Shoulders & Toland, 2017, p. 85) ^[8] of land instruction. However discussion choice, accord desires ancient times, present, and future of land instruction has, is, and will be formed for one three-circle model. Likely the center of the three-circle model to the regimen, frequent reasonings of the model itself alongside the associations of allure understanding are authorized (Croom, 2008; Hughes & Barrick, 1993; Rayfield and others., 2012; Shoulders & Toland, 2017; Swafford, 2018) ^[6, 4, 8]. In this place reflective script, we present a completing model to the three-circle model that addresses coach profit, an ingredient outside the focus of the three-circle model.

This reasoning is cognizant for one factual rise and current exercise of the three-circle model. The abstract inceptions of the three-circle model precede allure first diagram. Recognizing the instructional serviceableness of the home-project means, allied ruling as early as the 1917 Skilled person-Hughes Act backed the overlie middle from two points hall education and directed land knowledge (Croom, 2008) ^[9]. The addition of undergraduate partnership in the FFA as a main belief of an land instruction program, still, was not popularized just before 1947. The George-Barden Act of 1947 given capital for educators to accompany junior arrangement gatherings, like the FFA (Croom, 2008) ^[3]. Likewise in 1947, the Cook's Information on Education Pertaining to work Farming contained FFA projects all at once of the main stages of land instruction (Croom, 2008) ^[7]. Augmenting the clarity of FFA inside an land instruction program, the 1975 FFA Guides Information given the first diagram of the three-circle model immediately ever-present inside the training (Croom, 2008) ^[36].

The three-circle model involves evenly judge circles, suggesting money and knowledge concede possibility be consistently delivered across each component of an land instruction program (Croom, 2008; Hughes & Barrick, 1993; Moore, 2006; Shoulders & Toland, 2017; Talbert and others., 2022) [8, 12, 20, 11, 14]. This "equalized" approach is supported through professor

instruction, The need for a model foregrounding farming scholar boom is further urged by two determinants, (a) the lecturer deficiency and (b) coach assigned work concerns. During the whole of the instruction plan, a incessant deficiency of faculty members endures (Nguyen and others., 2022; Ingersoll and others., 2014; Ingersoll & Tran, 2023; Sutcher and others., 2019) [12, 10, 16]. Inside the land instruction regimen, this wonder is judged occurring by way of the Internal Land Instruction Supply and Demand Study. Usually, the supply and demand study has labeled a everywhere deficiency of land educators (Eck & Edwards, 2019: Person skilled in art and others., 2022) [13, 15]. The consequences of the persisted deficiency are talkative, containing programs closing, instructor change, and raised confidence on by preference confirmed assistants (Offerman and others., 2024) [15]. Likely the clarity of farming professor regret, knowledge inside the punishment has wanted answers to reason faculty members leave the declaration. Scientist have recognized the duties and responsibilities demands of the task, that build private (such as, borderlines, exhaustion, unmet beliefs) and friendly (for instance, work-existence balance) strains, as a donating determinant to lecturer regret and the lecturer deficiency (Haddad and others., 2023; Murray and others., 2011; Person skilled in art & Smalley, 2018; Solomonson and others., 2018; Solomonson and others., 2019; Sorensen and others., 2016; Sorensen & McKim, 2014; Traini and others., 2019; Traini and others., 2021) [16, 18, 20, 15]. Thus, the projected model produces a new habit to gestate duties and responsibilities demands and professor boom.

Abstract Support

The projected model arose, incompletely, from knowledge outside land instruction. The rise of "pastry commerce" (that is, spelled donut commerce hereafter) was winding answer to an old-fashioned financial principles suggesting steadily growing Gross Household Brand (GDP) concede possibility be the only procedure aim (Raworth, 2017; Wahlund & Hansen, 2022) [14, 19]. Outside lines, this approach influenced to "savings that are regressive, ridiculing the all living things on that human well-being basically depends" (Raworth, 2017, p. 217) [16]. A suggestion of choice approach, donut commerce made acquainted a lower bound of business-related venture in what way a humankind determines fundamental human needs (such as, water, snack, public

impartiality) and an superior bound (that is, an tangible maximum) of business-related result inside a people that leads to temperature change, biodiversity deficit, sea acidification, and different corrupt socio-environmental questions (Raworth, 2017; Waddock, 2020; Wahlund & Hansen, 2022) [6, 4, 9]. Clearly, this form a donut delineating the range of financial result a humankind bear run inside (visualize Figure 1).

Inside donut commerce, the aim of business-related procedure search out expand societies that lie betwixt the lower and superior bounds. Donut commerce was an creative approach to address a decline to base lines by a fundamental financial knowledge (Wahlund & Hansen, 2022) ^[9]. We argue established thinking inside instructional arrangements function like established thinking inside commerce. Current fashion land educators likely are all, usually, viewed as adapted graduates and societies; then, an endless growth of tasks for land educators can happen. This always-increasing task list, and the joined strain, is indefensible for lecturers (Haddad and others., 2023; Thieman and others., 2012; Traini and others., 2022) ^[3, 6, 4, 2]. To combat this, we grown the donut model for farming lecturer gain.

Arrogance

Before giving the model, we present four powers doing allure growth. First, we acquire the land instruction method (that is, broad group of things, arrangings, and processes that influence land instruction at local, state, and public levels) definitely and inevitably wields pressure on instructors to steadily do inner their work duty. Second, we adopt faculty members incarnate that pressure during the whole of their date accompanying the land instruction arrangement. After second, we adopt a form to help schoolteachers label and ideas their bounds will aid ruling class in strategically reacting to within and outside pressures to steadily do more. Divide into four equal parts, we adopt the finish is implausible to cause important reductions to the outside pressures utilized upon farming coaches commotion more.

Verdicts and Conversation: The Donut Model for Farming Faculty member Benefit

Fitting donut commerce, we intend the donut model for farming assistant accomplishment as a complement to the three-circle model of land instruction. To investigate the projected model, we present four elements: (a) lower bound, (b) above bound, (c) horizon shifts, and (d) frontier border.

Table 1: Model Work and Existence Ranges inside the Donut Model of Farming Coach Advance

Strategy	Impact	Level	Description
Redefine Success	Reduce	Individual	Actively challenge structures which reinforce agricultural educator success
	Lower Bound	and System	is ever-increasing productivity and external recognition.
Balance System Additions	Maintains Lower Bound	System	Refrain from additional expectations for teachers (e.g., paperwork) or new program opportunities (e.g., events, contests) without commiseratively reducing other teacher obligations.
Balance Success Inflation	Maintains Lower Bound	Individual	Only add a new program component if something requiring equal time, energy, and emotion is removed.
Effective Professional Development	Increase Upper Bound	System	Invest in teacher professional development which results in teachers obtaining skills, knowledge, or resources that directly increase their ability to successfully do the job (i.e., see McKendree & McKim, 2021 for an example).
Utilize Networks	Increase Upper Bound	Individual	Cultivate relationships with program supporters able to independently lead (or support) dimensions of the agriculture program.
Automate Roles	Increase Upper Bound	Individual	Utilize innovations which increase efficiency (e.g., automatic watering systems, auto-graded exams, online recordkeeping systems linked to award applications).

Superior Bound

The superior bound encompasses the exterior circle inside a donut model. In donut commerce, the above bound analyses the level of result inside a large group of areas that results in environmental depravity (Raworth, 2017; Wahlund & Hansen, 2022). Thus, the superior bound serves as a maximum for result likely the restraints of the atmosphere. Inside the donut model for farming assistant accomplishment, we delimit the above bound as the levels of output labeled by an farming lecturer inside work and growth ranges surpassing limits built by added work and growth maturities. E.g., an land teacher can judge their accruing blames and decide their maximum ability is seven FFA contest groups all the while a period. Thus, inside the contest partnership measure of their donut model, the above bound hopeful "seven FFA contest groups." Likewise, the professor's superior bound would contain a singular level of maximum output across common people of appropriate work and growth ranges (citation Figure 2) that constitute their distinguished donut.

The objective of donut commerce search out reformulate the aim of financial output from always-growing GDP to life 'tween the lower and above bounds of the model (Raworth, 2017; Wahlund & Hansen, 2022). Inside the donut model for farming professor happiness, the aim for an teacher inside each measure of work and growth acts search out survive betwixt their distinguished lower and superior bounds. By existent 'tween these bounds, the assistant's output meets their minimum standard for boom outside surpassing their competency likely added work and history maturities. Thus, the donut model redefines educator gain from alwaysgrowing output to a level of output existent middle from two points their lower and above bounds.

Edge Shifts

Inside the donut model for farming lecturer boom, the lower and above bounds are not changeless. Really, the lower and superior bounds vary 'tween lecturers and likely change for individual scholars during the whole of their courses. In this place portion, we investigate these dissimilarities.

First, we investigate distinctnesses from individual instructor to the next concerning their lower and superior bounds. Cause the lower bound is held of a instructor's self-description of accomplishment, individual must accept their description is two together separately and politically built (Haddad and others., 2023; Traini and others., 2021). Research implies individual of ultimate effective determinants for farming educator's description of progress is bureaucracy of land instruction itself, that expends pressure on assistants to delineate gain as program output and acknowledgment (Haddad and others., 2023; Traini and others., 2019; Traini and others., 2020; Traini and others., 2021). So, an farming lecturer's uncovering to bureaucracy (like, as a grades 9-12 junior, all the while a scholar instruction program, while undergraduate education, all the while a scholar advisership program, through manufacturing difficulty) will likely influence the lower bound inside their distinguished model. Apart from instability inside lower bounds, skilled is still above bound instability middle from two points scholars. A assortment of mathematical determinants (like, neuter correspondence, matrimonial rank, paternal rank, socioeconomics, age, strength level) influence work and growth trustworthiness and, so, competency for output inside work and existence ranges (McKim & McKim, 2023; Murray and others., 2011; Sorensen and others., 2017).

Skilled are further presumed shifts to lower and superior bounds during the whole of an individual's course in land instruction. The first potential shift surveyed in this place hypothetical script happens inside the superior bound. The pressure to balance shift desires as faculty members resume their courses, existence blames frequently change (McKim & McKim, 2023; Murray and others., 2011; Sorensen and others., 2017) happening in a decline of their workaccompanying superior bounds as more occasion, strength, and feeling are prioritized for non-work ranges. As an model, a assistant concede possibility not within financial means deliver the alike amount momentary achievement FFA contests following in position or time flattering a person (that is, or companion, superintendent, proprietor, society head, etc.) as they acted before property held individual or more of these various history parts (visualize Figure 3).

For few, the pressure to balance shift can be counterbalance apiece raised adeptness and information that suggests education knowledge; still, the impact concerning this interaction on professor's superior bounds likely changes from educator to assistant. Few evidence implies, still, some decline in assigned work guide occurrence and effectiveness is discharged accompanying supplementary (like, new FFA and SAE occurrences) work (Lambert and others., 2011; Sorensen and others., 2017); so, removing some assigned work decline preventing from occurrence and effectiveness. The second potential shift happening all along an farming assistant's course is fame increase, that impacts lower bounds. This shift desires as scholars resume their courses, skilled is an always-growing growth of anticipations (that is, from themselves, administrators, society appendages, etc.), promoting their work-accompanying lower bounds. This belief is by means of existent knowledge noticing bureaucracy of land instruction wants apparently aggressive tumor inside output and acknowledgment (Disberger and others., 2023; Haddad and others., 2023; McKim & McKim, 2023; Thieman and others., 2012; Traini and others., 2019; Traini and others., 2020; Traini and others., 2021). In Traini and others. (2020), they express this wonder as the "benefit trap," suggesting it enhances the "master narrative" for farming professors (p. 181).

Horizon shifts like the pressure to balance and achievement swelling are owned by monitor cause they influence the border supervisors have vacant middle from two points their lower and above bounds. In the next portion, we investigate the significant type of borderline border.

Frontier Border

As recognized, the beginning aim of the donut model for farming instructor happiness is educator life 'tween their lower and above bounds. Harmonious, another aim search out increase the border middle from two points a coach's lower and above bounds. Growing the border 'tween lower and above bounds supplies the professor elasticity to purposely assign strength among their work and existence ranges to address arising pupil interests, fluctuating society movement, and progressing individual interests (McKim & McKim, 2023). As an model (visualize Figure 5), let's conceive bearing approach to the donut model for two together Faculty member A and Educator B as we devote effort to something the measure of society relates (that is, the farming lecturer making relations accompanying society spouses to support junior education and program gain.

The edge border handy for Professor A admits more alternatives betwixt their lower and superior bounds. E.g., if moment arose in different growth duties or in additional ranges of the task, Professor A take care of humiliate their occasion property construction society links to individual stage per period and still be inside their bounds. If, alternatively, a new and conceivably advantageous society relation arose, Coach A would have the border to assign until six hours per temporal length of event or entity's existence inside the society link measure, still inside their bounds. By preference, Instructor B lacks the border middle from two points their lower and superior bounds to purposely assign money to take new and pleasing freedom in their growth and work parts.

This instance strengthens instructor accomplishment is not

just life middle from two points lower and superior bounds; farming scholar progress is bearing sufficient border middle from two points their lower and above bounds. This horizon border gives instructors the event to custom-make their opportunity distribution to take time during the whole of work and existence functions (McKim & McKim, 2023). Extending the border betwixt superior and lower bounds, nevertheless, is disputing as it demands either lowering lower bounds or growing superior bounds. In the following table, we survey instance blueprints individual coaches, or bureaucracy of land instruction, can accomplish to extend the border middle from two points lower and above bounds and, so, increase the chance of farming faculty member accomplishment (visualize Table 1).

Table 1: Model Policies for Extending Border betwixt Lower and Above Bounds

Strategy	Impact	Level	Description
Redefine Success	Reduce	Individual	Actively challenge structures which reinforce agricultural educator success is
	Lower Bound	and System	ever-increasing productivity and external recognition.
Balance System Additions	Maintains Lower Bound	System	Refrain from additional expectations for teachers (e.g., paperwork) or new
			program opportunities (e.g., events, contests) without commiseratively reducing
			other teacher obligations.
Balance	Maintains Lower Bound	Individual	Only add a new program component if something requiring equal time, energy,
Success Inflation			and emotion is removed.
Effective	Increase Upper Bound	System	Invest in teacher professional development which results in teachers obtaining
Professional			skills, knowledge, or resources that directly increase their ability to successfully
Development			do the job (i.e., see McKendree & McKim, 2021 for an example).
Utilize Networks	Increase	Individual	Cultivate relationships with program supporters able to independently lead (or
	Upper Bound		support) dimensions of the agriculture program.
Automate Roles	Increase	Individual	Utilize innovations which increase efficiency (e.g., automatic watering systems,
	Upper Bound		auto-graded exams, online recordkeeping systems linked to award applications).

The changeability to intentionally supply expose work and progress functions led to accomplishment by hurdle border decides the abstract reason to link the donut model for culture lecturer progress to task justification, life justification, and tutor thought. When border survives 'tween an production teacher's lower and superior bounds, deliberate judgments possibly molded that touch to self-achievement, blood relative defense, and humankind bettering (McKim & McKim, 2023). The result is an culture lecturer satisfied following their work and record parts the individual maybe more willing wait in the proclamation.

Together, the model permit an action repeated offer understanding of teacher regret and the gardening teacher inadequacy. The supposed link middle from two points the donut model and teacher regret stands through the lie over extraordinary effect, demarcated as a adviser's lower bound outstripping their above bound in individual or more life or work ranges (anticipate Figure 6). The lie over extraordinary effect occurs when a assistant does not appreciate person engaged in private ownership of business (like, event, substance, incitement) to accomplish a measure of their task or experiences at the level they demand of themselves anticipated money-making. Model, a teacher can make their lower near judging anticipated three hours a ending providing advantageous, collected reaction on younger tasks. Still, their superior bound possibly limited to 90 outline of gathering a material time of occurrence or individual's life for judging because the maturities of various work and life functions. In this place place flap summary, the teacher is helpless to loan critical moment inevitable by themselves wonted good.

The friendship 'tween the flap effect and faculty member regret is, nevertheless, not perfect (that is, as instantly as protrude happens, the professor does obliquely leave the declaration). Alternatively, we plan skilled are two mediating variables doing this friendship. First, the clarity of the task measure(s) in project likely influences if the lie over something else leads to regret. Particularly, the more noticeable the measure, the more likely it will influence faculty member regret. Second, the wonted event of the protrude will likely influence allure friendship accompanying regret. The farming education declaration contains importance during the whole of the school period that are more active than possible choice (Disberger and others., 2023). In these importance, overlay is more likely, but wonted expected transitory; accordingly, less significant to faculty member regret. The more maintained the lie over something else proper expected, nevertheless, the more likely it will influence coach regret.

Arising and frightening evidence inside the training implies project concede possibility be the average for few farming scholars, particularly those early in their course. The idea concerning this arising knowledge is early course assistants make universal renounce non-work responsibilities to meet demands working (Haddad and others, 2023; Traini and others, 2019; Traini and others, 2020; Traini and others, 2021). Inside the donut model for farming educator advance, these judgments are interpreted as supervisors impression strained to lower their lower bounds inside history ranges (for instance, exercise, classification, avocations) to fix climbing lower bounds inside work ranges (for example, FFA

occurrences, school cabinets, evaluating). Surely an offensive state, evidence plans coaches must weaken their lower bounds inside existence ranges or face maintained lie over something else as pressure mounts to increase work-connected lower bounds. This wonder grant permission cause educator regret, that is most prevailing with early course faculty members (Ingersoll and others., 2014; Sutcher and others., 2019).

Conclusion

The donut model for farming faculty member happiness complements the three-circle model for land instruction by foregrounding coach fame. In the projected model, professor profit is delineated by two traits, (a) faculty member output existent middle from two points self-labeled lower and above bounds for work and history ranges and (b) sufficient border betwixt self-labeled lower and above bounds. Thus, instructor progress is bearing the borderline border to purposely establish possessions during the whole of work and growth functions to gain independently outlined achievement. Apart from specifying faculty member happiness, the projected model supports main abstract linkages to professor delight, scholar memory, and instructor regret. Then, while the threecircle model illuminates noticeable approaches for optimizing graduate development (Chef and others., 2012; Croom, 2008; Swafford, 2018; Talbert and others., 2023), the donut model for farming lecturer benefit illuminates important approaches and appropriate research questions to better think the happinesses and challenges of an farming education course.

Apart from the hypothetical affordances of the model, the donut model for farming instructor benefit is created expected a realistic finish for farming faculty members. Cause the model is distinguished, scholars are heartened to design the appropriate ranges inside their work and history acts, recognizing lower and superior bounds each measure (free possessions for establishing an distinguished donut vacant attending: https://tinyurl.com/2de6sv6p). Already established, the distinguished donut model serves as a form to correspond, judge, and consider lower bounds, above bounds, and frontier border. Contemplate an farming scholar the one has built their donut model; the following are models of in what way or manner they keep use it at various points in their course. When interviewing for an farming education position, they manage handle their donut model to judge adjustment of their lower and superior bounds and the standards of the school and position at which point they have used. As they start active inside the school, they keep steadily clarify their donut model accompanying presidency and society colleagues consenting to their lower and above bounds. The scholar commit daily consider their work and history duties to guarantee they are claiming life inside the borderlines in occasions of boom and occasions of anxiety. Further, a donut model endorsed by presidency and society colleagues maybe secondhand apiece farming faculty member to maintain edge- confirming determinations (for example, proverb "no" to a school bureau, sagging to promote a new occurrence).

References

 Cook MA, Robinson JS, Kolb DA. Joining Kolb's practical education hypothesis accompanying an inclusive land instruction model. Journal of Agricultural Education. 2012;53(4):1-16.

- doi:10.5032/jae.2012.04001.
- Croom DB. The development of the unified threecomponent model of agricultural education. Journal of Agricultural Education. 2008;49(1):110-120. doi:10.5032/jae.2008.01110.
- 3. Disberger B, Washburn S, Pawn G, Ulmer J. A quantitative study of agricultural faculty members' attitudinal changes toward the teaching profession in the first three years of service. Journal of Agricultural Education. 2023;64(1):61-81. doi:10.5032/jae.v64i1.30.
- 4. Eck CJ, Edwards MC. Teacher shortage in school-based agricultural education: A review. Journal of Agricultural Education. 2019;60(4):223-239. doi:10.5032/jae.2019.04223.
- 5. Haddad B, Traini HQ, McKim AJ. We've crossed the line: A reflective analysis of foundational recommendations regarding SBAE teachers' efforts at vision building. Journal of Agricultural Education. 2023;64(1):82-95. doi:10.5032/jae.v64i1.31.
- Hughes M, Barrick RK. A model for agricultural education in secondary schools. Journal of Agricultural Education. 1993;34(3):59-67. doi:10.5032/jae.1993.03059.
- 7. Ingersoll RM, Merrill L, Stuckey D. Seven trends: The transformation of the teaching force. Consortium for Policy Research in Education Report (#RR-80); c2014.
- 8. Ingersoll RM, Tran H. Teacher shortages and turnover in rural schools in the US: A national analysis. Educational Administration Quarterly. 2023;59(2):396-431. doi:10.1177/0013161X231159922.
- 9. Jenkins III CC. A quality agricultural education program: A national Delphi study [master's thesis]. University of Kentucky; c2008.
- 10. Lambert MD, Henry AL, Tummons JD. How do early-career agricultural educators perceive their careers? Journal of Agricultural Education. 2011;53(3):50-63. doi:10.5032/jae.2011.03050.
- 11. McKendree RB, McKim AJ. Teacher professional development in practice: An analysis of the impact of participatory professional development. Journal of Agricultural Education. 2021;62(3):72-84. doi:10.5032/jae.2021.03072.
- 12. McKim AJ, McKim LK. Enhancing professional growth by expanding agricultural teacher support. Journal of Agricultural Education. 2023;64(3):16-25. doi:10.5032/jae.v64i3.48.
- 13. Moore G. Who's driving the agricultural education bus? A call for professional leadership. Journal of Agricultural Education. 2006;47(1):1-5. doi:10.5032/jae.2006.01001.
- 14. Murray K, Flowers J, Croom DB, Wilson B. Agricultural teachers' struggle for balance between career and family. Journal of Agricultural Education. 2011;52(2):107-117. doi:10.5032/jae.2011.02107.
- 15. Nguyen T, Espinoza C, Bruno P. Is there a national teacher shortage? A systematic review of reports of teacher shortages in the United States (EdWorkingPaper: 22-631). Annenberg Institute at Brown University; c2022.
- Offermann JK, Maxwell LD, Solomonson JK, Barrowclough MJ. Filling the gap: Factors influencing individuals with no school-based agricultural education background to enter the profession. Journal of Agricultural Education. 2024;65(1):320-334.

- doi:10.5032/jae.v65i1.82.
- 17. Raworth K. Why it's time for doughnut economics. IPPR Progressive Review. 2017;24(3):216-222. doi:10.1111/newe.12058.
- 18. El-Sayed A, Nowak M, Rodríguez N, Clarke M. Digital mapping of soil degradation hotspots. J Soil Future Res. 2023;4(2):56-60.
- 19. Rayfield J, Green T, Briers G, Lewis L. Recognizing innovative agricultural education programs. Journal of Career and Technical Education. 2012;27(2):38-50. doi:10.21061/jcte.v27i2.558.
- 20. Shoulders K, Toland H. Differences between current and ideal emphasis on the three components of the agricultural education program. Journal of Agricultural Education. 2017;58(1):85-101. doi:10.5032/jae.2017.01085.
- 21. Sorensen AR, Lambert DD, Lawver RG. National agricultural education supply and demand study, 2022 executive summary. American Association for Agricultural Education; c2023.
- 22. Sorensen AR, Smalley S. Job stress, burnout, and professional development needs of mid-career agricultural education teachers. Journal of Agricultural Education. 2018;59(2):305-320. doi:10.5032/jae.2018.02305.