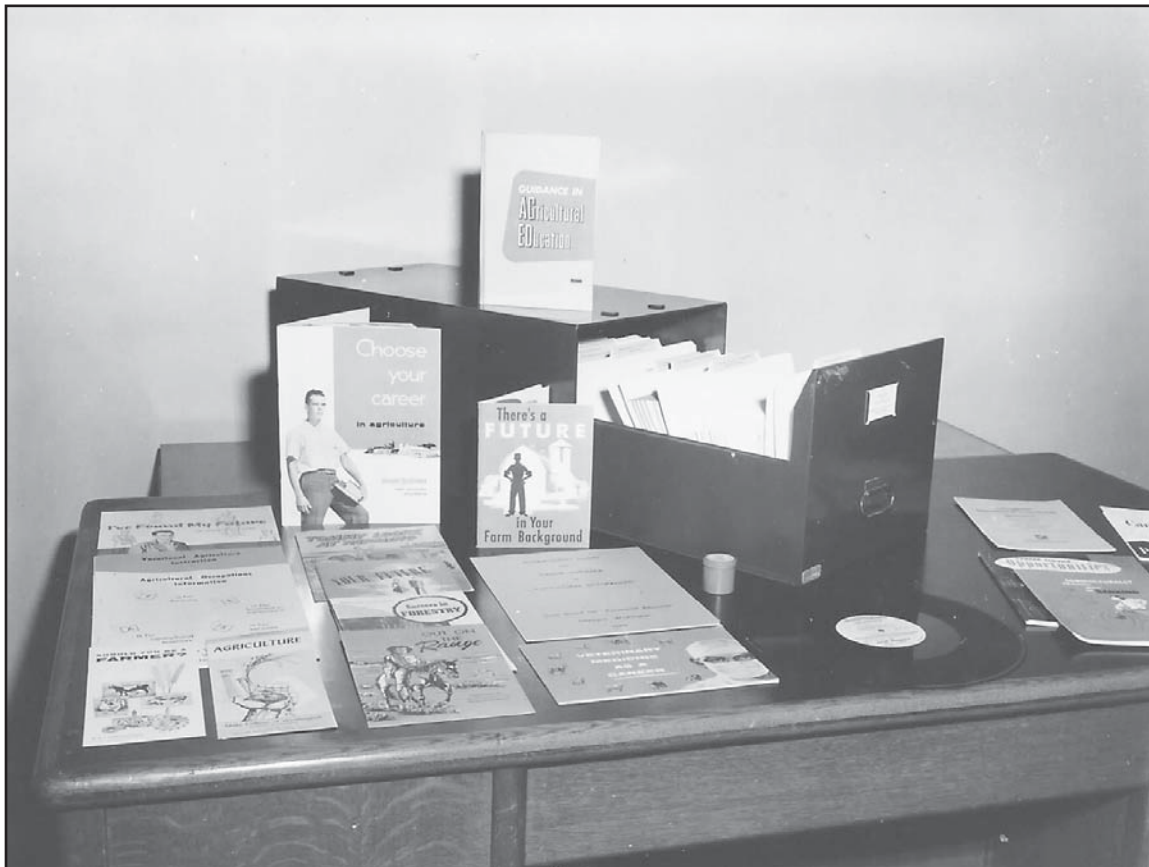


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*Teacher Educators  
Reflecting on the Past While Looking to the Future*

## *Reflections on Six Years as Editor of The Agricultural Education Magazine*

by Harry N. Boone, Jr.

I would like to take this opportunity to congratulate Dr. John C. Ewing on being named the Editor of *The Agricultural Education Magazine* for 2016-2018. I have known John since he was a graduate student at The Ohio State University. The *Magazine* will be in capable hands under Dr. Ewing's editorship.

In many respects the past six years have flown by. It doesn't seem that long ago that I struggled to publish my first issue. Dr. Antoine Alston came through with his articles for the second issue that allowed me to switch themes and keep the publication schedule.

In addition to Antoine Alston, I would like to thank Brad Greiman, John Ewing, Shannon Arnold, Jason Peake, Grady Roberts, Donna Moore-Rudd, Ben Swan, Ellen Thompson, Nancy Trivette, Jamie Cano, John Ricketts, Nancy Grudens-Schuck, Doug LaVergne, Michael Retallick, Rebecca Lawver, Nicholas Brown, Rebekah Epps, Matt Baker, Ann DeLay, Amy Smith, Ryan Foor, Kirby Barrick, Andrew Thoron, Jon Simonsen, Thomas Paulsen, Ryan Anderson, and Jessica Blythe for serving as Theme Editors. In addition to her support and encouragement, my wife, Deborah Boone, served as Theme Editor for three Potpourri issues. She also served as a "sounding board" for theme suggestions. Without the assistance of the Theme Edi-

tors, *The Agricultural Education Magazine* could not be published.

There are a number of individuals in this profession that have a tremendous wealth of knowledge gained through scholarship and personal experiences. Many of these individuals, however, are reluctant to step forward and share this information. As I contemplated my final year as Editor, I wanted to give some of these individuals an opportunity to share their knowledge. I asked each State Association President to nominate high school teachers, state supervisors, and teacher educators that fell in this category. Using my personal knowledge of the profession, as well as nominations from the public, I have reached the end of this project. It hasn't been easy since agricultural educators are reluctant to "toot their own horn," but I have been able to feature a number of outstanding educators in my final three issues of the *Magazine*.

Having a little space to fill in this issue, I had a "brain storm." Keep in mind that there were at least two major milestones in the history of the *Magazine*. One occurred in 1929 when the publication started. The second occurred in 1939 when the magazine changed its name from *Agricultural Education* to *The Agricultural Education Magazine*. I pulled those two issues and started to read the articles that were published. I found two articles that

I have reprinted in this issue that given a few minor updates is as timely today as they were when they were originally published. I hope that you agree and enjoy the "look back."

I would also like to thank Dr. Jay Jackman and the leadership teams of the National Association of Agricultural Educators for giving me the opportunity to serve as Editor. They have given me the freedom to select themes, theme editors, and articles that I felt were pertinent to the profession. In turn I hope that my selection of themes, theme editors, and articles have helped to support and educate the profession. If I accomplished that goal then the efforts were worth it.

My role of Editor is not ending, I am just switching jobs. Starting January 1, 2016 I will assume the role of Editor for the *Journal of Agricultural Education*. The two publications are dramatically different but it will give me an opportunity to continue to serve the profession.

Thank you for the opportunity to serve agricultural education.



*Dr. Harry N. Boone, Jr., is a Professor at West Virginia University and Editor of The Agricultural Education Magazine.*

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**Article Submission**

Articles and photographs should be submitted to the Editor or Theme Editor. Items to be considered for publication should be submitted at least 90 days prior to the publication date of the intended issue. All submissions will be acknowledged by the Theme Editor and/or the Editor. No items are returned unless accompanied by a written request. Articles should be approximately four double spaced pages in length (1500 words). Information about the author(s) should be included at the end of the article. Photos and/or drawings appropriate for the "theme issue" are welcomed. Photos/drawings should be submitted in an electronic format (jpg or tiff format preferred - minimum 300 dpi). Do not imbed photos/drawings in the Word document. A recent photograph (jpg or tiff format preferred- minimum 300 dpi) of all authors should accompany the article unless photographs are on file with the Editor. Articles in the *Magazine* may be reproduced without permission but should be acknowledged.

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**Cover:** Photo courtesy of *The Agricultural Education Magazine* archives.

## *John C. Ewing, Editor*

### *The Agricultural Education Magazine (2016-2018)*

**D**r. John C. Ewing has been named as the Editor of *The Agricultural Education Magazine*.

Dr. Ewing is an Associate Professor of Agricultural Education in the Department of Agricultural Economics, Sociology, and Education at Penn State. Prior to joining the faculty in 2006, Dr. Ewing earned his graduate degrees in Agricultural Education at The Ohio State University. He earned his B.S. degree in Agricultural Education from Penn State in 2000 and then taught agriculture at the high school level for three years.

Currently, he serves as the undergraduate program coordinator for the Agricultural and Extension major, as well as the Agricultural Science major. In this role, he works with students to make certain they are working towards successful completion of their program. Dr. Ewing serves as the AEE program representative to the college's Instruction and Curricular Affairs committee (chair 2012 – 2015). By serving in this capacity, he is better able to guide students to opportunities that will enhance their Penn State experi-

ence. He advises approximately 30 undergraduate students and 8 graduate students, annually. Dr. Ewing also counsels students from other majors that are interested in becoming certified to teach agriculture.

His research program focuses on the improvement of teaching and learning; specifically, experiential learning. These research efforts focus on educational processes at the secondary and post-secondary level in agricultural education, including experiential learning in multiple learning contexts. Additionally, he has participated in assessment projects at both the local and state levels for program evaluations for secondary agricultural education programs. He has also served on multiple graduate committees that guided students through the planning and assessment of the programming process.

Dr. Ewing was recognized by the North Central American Association for Agricultural Education as the Outstanding Early Career Agricultural Educator (2009). This award recognizes agricultural educators for their contributions



to teaching, research, and service. Dr. Ewing has been honored with the College of Agricultural Sciences NACTA Teaching Award of Merit, as well as being inducted into the Penn State Chapter of Gamma Sigma Delta.

Dr. Ewing will have the 2016 themes ready in January. If you have an idea for an article or theme, please contact him at:

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Memories are the key not to the past, but to the future.

Corrie Ten Boom

Study the past, if you would divine the future.

Confucius

## *In The Year 2040*

by L. H. Newcomb

Reflecting over a 50+ year career is interesting. Predicting the next 25 years is fascinating and fraught with error. That's what Dr. Harry N. Boone, Jr. asked that I do.

### **The 1960s**

As I decided what classes to sign up for in high school, what I heard in the school hallways about "vocational agriculture," was not positive. It was derisive so I did not enroll. But something pulled me back in 1963 when I scheduled my junior year classes and that made all the difference in the world for me.

Mr. A. A. LeGrand was my teacher. My memories aren't about the agricultural content I learned. My indelible memory is that Mr. LeGrand saw something in me which I did not see in myself. All great teachers are like that. He nurtured what he saw. He arranged experiences for me which developed the person I would become.

The local program was production agriculture. The FFA was strong.

Even as a high school student, one recognized the presence of state supervisors and their influence. At State Convention the FFA Advisor and FFA Executive Secretary were present and effective. As State FFA President, their influence on me was immeasurable.

Teacher educators were in our school supervising student teachers. They were recruiting students to attend Virginia Tech. C. E. Richard helped me get into Virginia Tech. Later, as my professor, he taught me how to teach.

In the late 60s, students who enrolled in local programs were rather homogeneous. Yet the 70s were tumultuous. Societal upheaval was rampant. It was during this time that the threat of federal legal action prompted historical change in the FFA.

This may well be the key – local teachers trying out ideas – their own bold ideas – great experiments, each of which emanates from the proposition of drawing in those we are not now serving.

FFA and NFA merged; but it was more like a takeover by FFA. It never produced the kind of outcomes that would have been good for all. The FFA, under duress, agreed to admit females into the organization. This development has made all the difference in the world. That one transformational change likely assured FFA and agricultural education a 50 year lease on life.

As I became a teacher in 1969, we felt the air of change in my local program. The '63 and '68 Vocational Education Acts brought forth exciting possibilities for broadening programs. As we

planned the agriculture program for our new high school we were excited to plan for non-production agriculture offerings.

We had a strong state department staff. They provided funding, direction and empowering supervision. The teacher education staff prepared teachers (never enough to meet the demand) and offered post baccalaureate courses. National leadership positions in the U. S. Department of Education were down to a couple of people. However, federal funding was strong.

### **The 70s and 80s**

In 1971 my path took me to Ohio State University as a doctoral student. In 1973 I joined the faculty at Ohio State.

During these years state level leadership was strong. Money and ideas flowed. Supervisors were out in the schools leading, visioning, and guiding. Summer teacher conferences were well attended. District teacher meetings during the school year were too.

Likewise, the teacher education faculty was large and strong. Faculty offered numerous courses

off campus each term. During this era, in Ohio teacher educators annually offered summer courses for more than 30 teachers recruited from industry to staff mostly “non-production” agriculture programs. Such “non-production” programs were offered in 5-7 different program areas through Ohio’s “joint vocational school” system.

Ideas flowed forth. State staff and teacher educators met monthly. The state department provided salary support and operating funds for teacher education.

The Ohio FFA was very progressive under the visionary leadership of Dr. Earl Kantner. As a conservative Virginian I was impressed. When I saw State FFA officers wearing blue blazers as official dress I was amazed.

Then came the 80s. Change slowed. Progress made in urban centers was hampered by those who wanted to force the “new” into the “old” paradigm. FFA participation among urban students was a struggle. The profession thought it was “them” – those “different” city students. My hunch is it was us (and still is us). The traditions we loved in FFA were perhaps repulsive or at least un compelling for these “new” students.

In 1989 I left the department to serve as Associate Dean and later Senior Associate Dean of the college at The Ohio State University.

Shortly after retiring in 2007 I returned to the department for a stint as Interim Department Chair for two years. (2009-2011).

## 2010s

Upon returning I was astounded at the change – the decline, the withering which had occurred over the last twenty years.

State supervision was markedly weaker. There were far fewer supervisors. Their influence was diminished as was their role. I found they were only allowed to go out to schools if they were “invited” by the local administration. There were fewer dollars flowing to the schools for agricultural education and little financial support for teacher education. Any semblance of federal leadership was long gone from the U. S. Department of Education. But for the National FFA staff, there was no national voice. There was still some programming ideas from the state. There was markedly less teacher participation in summer conferences or district meetings. The change was simply astonishing and was sad for me to see.

Teacher education was similarly diminished. Fewer faculty were involved in teacher preparation and in-service education. There was less cooperation between teacher educators and state supervisors.

There was much “talk” of agri-science. However, the talk exceeded what one observed on the ground.



*Mayor H. Roe Bartle of Kansas City was introduced by President, Adrin Heater. (Photo courtesy of The Agricultural Education Magazine archives.)*

## Drivers for Growth

Historically, the drivers for growth in numbers and strength of programs, and certainly expansion of them, came from federal and state leadership and funding. By the 60s and certainly the early 70s federal leadership was much diminished but state leadership continued strong during this time period. However, by the early 2000s funding and leadership at both levels was significantly diminished. FFA has been the brand for at least the last 40 years; almost exclusively for the last 30 years. The tail has wagged the dog to a large extent. This is not ideal but without the strength of FFA branding and filling the void of national leadership, the program would

likely be in shambles by now.

Still, the historical drivers for growth are all but gone. What will this mean for the durability of the program over the next 25 years?

### **Where to From Here?**

I feel programs need three key things to thrive. They are:

1. Leadership with vision that permeates the organization.
2. Resources to fuel program transformation.
3. Persistent implementation of vision, coupled with structure that connects national, state and local efforts.

As already noted, historically the leadership and vision came from federal legislation along with funding. This was coupled with leadership and vision at the state level.

So, where is the program today that has meant so much to my life? I've been removed from the day-to-day flow for the last several years so I cannot, with much certainty, assess exactly where the program is. Those of you who are still active can make the assessment. You need to ask – do we have 1) visionary leadership, 2) adequate and effectively deployed resources, 3) persistent implementation of vision? If not from where will it come?

### **Prospect for the Next 25 Years**

It seems to me, the prospect for the next 25 years depends on the answer to the following questions:

1. Will curriculum truly become agri-science with as much science content moxie as high school biology and chemistry?
2. Will FFA (or its successor) become sufficiently flexible/liberal so as to attract participation of urban/suburban, non-agriculture background students and equitably serve them? By equitable I mean providing for them as many CDEs, proficiency opportunities, etc. as rural production agriculture students have. I believe it is possible and necessary to create new paradigms of leadership development for the new audiences (students) who must be attracted if the program is to thrive.
3. What entities will provide the political influence to garner needed federal and state resources?

By what process and with what actors will these questions be addressed? In particular who will assemble the coalition required to address question 3?

### **In Closing**

In preparing to write this piece, I perused the issues of *The Agricultural Education Magazine* from 2013 until now. I found nothing truly transformational occurring. There was no evidence of an on-going systematic effort which clearly and convincingly pointed the way.

What rays of hope I found came from isolated instances of local teachers being pioneers – especially as related to program-

ming in some urban centers. The one key for hope came from one local teacher, who it seemed to me had embarked on rampant experimentation. This experimentation flowed from a person with vision who didn't ask permission. The teacher just pushed forward.

This may well be the key – local teachers trying out ideas – their own bold ideas – great experiments, each of which emanates from the proposition of drawing in those we are not now serving. This, coupled with the determination of helping students see in themselves great possibilities they have not yet seen (just as Mr. A. A. LeGrand did with me in 1963) may well bring about the GREAT TRANSFORMATION which will be required for agricultural education to have the compelling future which those of us who have benefitted from it in the past desperately want to see.



*Dr. L. H. Newcomb is Professor, Senior Associate Dean and Price Chair in Teaching, Learning and Advising Emeritus, The Ohio State University.*

## *Our Future as Influenced by Our Past*

by John Hillison

**T**he further backward you look, the further forward you are likely to see.”

Winston Churchill  
(Cornerstones, 1996, p. 72)

### **Where We Came From**

Before our profession can have an idea what our future might look like, we need to know where we came from. History can be the guide for what our future will be like. With that in mind, we need to start even before the Smith-Hughes Act.

It is up to the professionals in our field to determine our own destiny. The past gives us a blueprint to examine and a great deal of guidance for that future.

Publicly supported agricultural education was taught earlier than most members of the profession realize. Examples include the Philadelphia Society for the Promotion of Agriculture in 1785, New Harmony (Indiana) Utopian Society in 1825, the secondary school of agriculture at the University of Minnesota in 1888, and the National Farm School in Doylestown, Pennsylvania in 1896.

Congressional District Agricultural Schools were started in Alabama in 1889, Georgia in

1906, and Virginia in 1910. Such schools were located in each Congressional district in the respective states. The Georgia schools were in existence when Hoke Smith was governor of Georgia and one was located in Congressman Dudley Hughes' district. Such schools typically had instruction in a classroom setting, in school laboratories, and a school farm. Often times the Congressional District schools also had commodity based student organizations.

Prior to passage of the 1917 Smith-Hughes Act with the patrons of Hoke Smith and Dudley

Hughes, agricultural education had been in existence for a long time in the United States. For example True (1929) reported that in school year 1915-16 there were 3,675 secondary schools with an enrollment of 73,000 students in agricultural instruction. The curriculum content of the courses for those students included academic instruction, vocational instruction, and agricultural literacy. Leadership at the national level for agricultural education prior to 1917 came from the United States Department of Agriculture (USDA) which provided instructors with

subject-matter bulletins and circulars, information on boys' and girls' clubs, charts, photographs, lantern slides, chapters in yearbooks, and moving pictures (Report, 1914)

With passage of the Smith-Hughes Act the mission of agricultural education greatly narrowed from the three pronged approach of academics, vocational, and literacy to almost exclusively vocational. The emphasis on preparation for farmers became called vocational agriculture. A decade after the Smith-Hughes Act was passed the Future Farmers of America (FFA) was started in 1928 as a white boys' organization for students enrolled in vocational agriculture.

### **Personal Experience**

My first experience in the program occurred in 1958 as a high school student enrolled in a Vocational Agriculture I course and a greenhand member of the FFA. I planned on being a farmer and I was a white boy. Consequently, I was legal. The course content taught was based upon the precedents set by the various programs and legal requirements of the Smith-Hughes Act. About once a year a state supervisor would visit the department and make certain of the latter. I recall being told by my agricultural teacher “Boys I don't care what you do today or the day after tomorrow, but tomorrow my state supervisor will be checking on me and I want your best behavior.”



After high school graduation I decided to go to college and become a teacher. By the standards of the Smith-Hughes Act I was a failure. While a teacher in the late 1960s I observed change occurring in my profession. The Vocational Education Act of 1963 and its 1968 amendments permitted off-farm preparation and my high school department's curriculum certainly showed that with agricultural business placement and students choosing related careers. I attended the 1965 National FFA Convention and observed the public merger of the FFA and the New Farmers of America (NFA) and was quite pleased that it occurred. In 1969 girls were permitted to join the FFA and some started to enroll in my classes. I found the boys were hesitant to share FFA awards with the girls.

During the 1970s I became a teacher educator. I wanted to help prepare and provide in-service assistance to classroom teachers. Research and scholarship such as publications were important for my career. Grantsmanship was good, but not all that important. Working with teachers was the most important thing to me and I got to do that. Not losing touch with reality in the university "Ivory Tower" was also important. A partial solution to this potential problem was conducting annual exchange programs with middle and high school teachers where I would teach their classes and they would teach my classes back on campus.

Retirement came in 2006. I now consider myself to be an elder observer and statesman.



*State FFA Leadership Camp (1955), Niobrara State Park, Nebraska. (Photo courtesy of The Agricultural Education Magazine archives.)*

### **Where We Should Go**

History has taught us that a fundamental purpose of our profession is to make sure we provide well trained employees to the industry we serve - agriculture. Initially we served the farming component of agriculture, but today agriculture is so much broader than farming. It is an industry that provides food, fiber, and fuel. Our profession has the good fortune to have a subject matter that appeals to all ages, all interests, and all ability levels.

With an ever increasing world population and decreasing farmland, it is essential to have the best and brightest entering the field of agriculture. That is an area where our profession needs to change. While manual work will play a role in the future of agriculture it will be human intellect that will solve the biggest future problems. We need to have a curriculum that attracts both the future manual workers and the school honor students including valedictorians and salutatorians - students who will

obtain bachelor's and graduate degrees from university colleges of agriculture. Certainly, there are marvelous job opportunities for such students.

With theoretical science typically taught in biology, science, and chemistry classrooms agricultural subject matter can apply such content and make it much more interesting. Such application should receive science credit. Licensure for high school teachers should emphasize basic science as well as agricultural subject matter courses. In the meantime team taught courses with, for example, a biology teacher and an agricultural science teacher could serve as a bridge to full implementation. Another future approach could be dual enrollment courses with community colleges. Every high school agricultural education department in the future should have at least course that receives science credit and/or dual enrollment credit. This approach would take our profession back to the academic part of the curriculum prior to the Smith-Hughes Act.

Another aspect of the pre-Smith-Hughes agricultural education program that could be emphasized more is agricultural literacy. Literacy not only can help develop a more literate population, but it can serve as a recruitment vehicle for middle and high school agricultural education programs. Elementary teachers can bring academic course content to life with interesting agricultural examples. Fortunately, USDA has a program called Agriculture in the Classroom that accomplishes many of those objectives. My point for the future would be that agricultural educators should be more willing to embrace the purpose of agricultural literacy.

In the future both programmatic and administrative leadership needs to go back to the historical model of state and national agricultural departments. I see many advantages for going back to the home of USDA. My experience has been that when I have to explain what agricultural education and FFA are to someone, it is a lot harder to gain their support. Often times dealing with Department of Education employees at either the state or national level, other than agricultural education professionals, means a lengthy explanation. However, when working with Department of Agriculture personnel at either the state or national level, it is a short explanation as many were students in an agricultural education program and an FFA

member. Typically, the Department of Agriculture employee has a great respect for what our profession can do for the agricultural industry. Many agricultural educators believe the best administrative structure for their university department is in a college of agriculture and have many reasons for their choice. Most of those same reasons apply to the leadership needed. Using that background and the effective way USDA worked with early agricultural education, it makes good sense to me to go back to our original administrative structure at both the state and national levels.

The United States Department of Agriculture set an interesting precedent many years ago when it provided funding for the 4-H youth program. With agricultural education as part of USDA it could become legal for USDA to fund FFA program work and activities in a fashion similar to 4-H with students not having to pay dues - every agricultural education student would be an FFA member. We are proud of the fact that FFA is an integral part of agricultural education. However, there are thousands of agricultural education students who are not members. For them the integral part does not hold. With the help of USDA integral could become a reality for all students.

Few industries change as rapidly as agriculture. Our field

of agricultural education must do its best to keep up with those changes. The inertia of standing still will not keep us up-to-date, in fact, it will put us out of business. While it is easier to understand the past than to predict the future, it is up to the professionals in our field to determine our own destiny. The past gives us a blueprint to examine and a great deal of guidance for that future.

## References

Cornerstones (1996, November). *Progressive Farmer*. III(11), 72.

*Report of the Commission on National Aide to Vocational Education*. (1914). Washington, DC: U. S. Government Printing Office.

True, A. C. (1929). *A history of agricultural education in the United States 1785-1925*. United States Department of Agriculture Miscellaneous Publication No. 36. Washington, DC: U. S. Government Printing Office.



*Dr. John Hillison is Professor Emeritus in the Department of Agricultural, Leadership, and Community, Virginia Tech University.*

“Study the past if you would define the future.”

Confucius

# Reflecting on New Directions for Agricultural Education

by R. Kirby Barrick

The National Research Council (1988) report *Understanding Agriculture: New Directions for Education* presented the findings, conclusions and recommendations of the work of a prestigious committee of educators and agriculturalists who were charged with offering advice on three topics: “goals for instruction in agriculture, subject matter and skills that should be stressed in curricula for different groups of students, and policy changes needed at the local, state, and national levels to facilitate the new and revised agricultural education programs in the secondary schools” (pp. v-vi). Here we are, more than 25 years later, reflecting on how the committee saw the status of agricultural education and prognosticated about the future of school-based agricultural education (SBAE). What has been accomplished? What needs more effort and focus? Here are some thoughts based on the themes identified by the NRC commission.

**Systematic instruction about agriculture beyond vocational agriculture.** The report clearly stated that agricultural education is more than vocational agriculture. While the old term has been dropped, it seems that the new term is simply a substitution rather than a broadening of definition (and

programs). Few examples exist today that show evidence that agriculture is taught throughout the K-12 school system. Granted, programs like “Ag in the Classroom” and school-based 4-H programs are provided in many communities. But they are not reflective of a purposeful effort to incorporate agriculture into the curricula, as opposed to being an add-on activity at the elementary school level.

The outlook is bright, but it all depends on the extent we are willing to evaluate the past and use what we have learned to build an even better future.

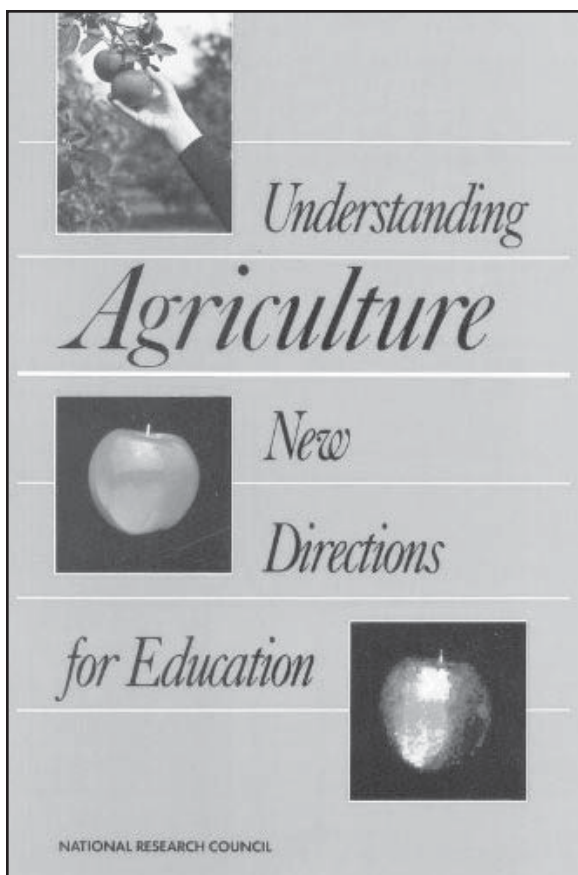
Agricultural education must work closely within school systems to provide leadership for curricular change.

**State and national program leadership.** For years we relied on the “state supervisors” to provide leadership and guidance as they administered programmatic efforts. That era is past and probably will never return. While some states have been able to retain leadership positions, most have not as Perkins funding has essentially by-passed the state agency with direct funding to local programs. Therefore, teachers, teacher educators, and their respective organizations must step forward to provide the leadership for program change, such as those identified in these musings.

**Relevance: career and college readiness.** School-based agricultural education may be suffering from a “one size fits all” dilemma. Historically, students in the program were mostly “vocational” students, headed to a job and career in some part of agriculture. But some students (such as most of the readership of this magazine) were also college-bound. Pressures for increased enrollments

have not been addressed adequately. Courses that help prepare students for college may do an injustice to the job-bound students. To the contrary, a career approach may short-change the college-bound students. And a third group, the “neither” students who want some basic understanding and/or science credit but are not college/career-bound in agriculture, create issues for teachers regarding the SAE and FFA components of the program. Perhaps it is time to create, purposefully, an array of courses and programs to address an array of student needs, interests and abilities.

**Specialized programs to meet AFNR Career Pathways.** Continuing that logic (if it exists), most programs in agricultural education



*Published in 1988, Understanding Agriculture: New Directions for Education had a major impact on agricultural education.*

tend to be general agriculture with instruction across a number of career pathways. Agriculture continues to become more technical and more specific; therefore, it seems logical that instructional programs should follow suit. The eight career pathways identified in the AFNR standards document provide excellent guidance for planning cutting-edge programs. But this also means a re-look at teacher preparation; can one teacher be adequately prepared to offer career-ready instruction across all pathways?

**Supervised Agricultural Experience.** SAE is one of the most written about, researched, and talked about topics in all of agricultural

education. Recent studies have reported that perhaps less than 50% of SBAE students actually conduct some type of SAE, and that the only students involved with SAE are those who desire to win an award or receive an advanced degree. How can a purported career readiness program ignore to a great extent the application, the hands-on learning of competency and skill development? The answer lies in part within the previous two sections. Some or many students in the program are not career-bound in agriculture so they see little need for an SAE. Additionally, teachers are responsible now for many more students, so from a simply practical aspect having all students with a traditional SAE may not

be possible. Separate programs for different sets of students could also lead to separate expectations for the applied learning segment of the program. For those students truly not enrolled for a “vocational” purpose, group projects on school property (outside of their regular class time) should be utilized. And for some, a suitable SAE just might not be available, as noted in the NRC report.

**FFA in the 21<sup>st</sup> century.** Many of us in agricultural education hold FFA almost “sacred.” The NRC committee recommended many changes in FFA, from name, symbols and rituals to awards and membership eligibility. Not much

change has occurred. A large portion of activities and programs seem to still be geared toward traditional programs in traditional agriculture. For some reason, raising the need for change is often interpreted as substituting new programs for the traditional ones. Instead, surely the profession can think through current programs, eliminate those that are no longer aligned with agricultural education instruction, and implement new activities that address new instruction. Further, with the expansion of school-based agricultural education into middle schools, the question must be raised regarding what is appropriate for that age group. Simply starting the same competitive events two or three years earlier is probably not the answer. As an aside, corporate funding for a program does not legitimize it as a part of 21<sup>st</sup> century school-based agricultural education.

**State program and budgetary policy.** At the national level, the Team AgEd concept appears to be a new direction in providing leadership for the entire agricultural education enterprise. The National Council for Agricultural Education serves as a pseudo-governing body to promote cooperation and collaboration among the key groups. However, the NRC report called for a higher level commission to be appointed by the governor and chief state school officer to “identify needs and strategies for implementing agricultural literacy programs and reforming vocational agriculture [sic]” (p. 6). Few if any states have actually implemented that recommendation. The

internal stakeholders have only so much authority for creating and implementing change. For real change to occur, the effort must be raised to a higher level and must, as suggested by the NRC commission, include legislators, school superintendents and board members, principals, and science teachers. It would be great to see a model such as this implemented for others to emulate.

**Curriculum enhancement/broadening.** In recent years it appears that many, or perhaps most, states have devoted considerable effort to address this issue. The movement toward a more definitive and hopefully up-to-date curriculum for school-based agricultural education has probably been the result of various state and federal mandates for high-stakes testing and curriculum reform. More needs to be done. As posited by the NRC commission, what are the new programs that have emerged to address new and vibrant areas of a broader agriculture curriculum? How did that occur? Then the profession and stakeholders need to emulate and replicate those efforts. We must keep in mind: it is not production agriculture OR something else. It must be both/all.

**Teacher preparation and in-service education.** Here is the dilemma for agricultural teacher education: it has become easier

and easier to obtain a teaching position and teaching credentials without completing a state-approved teacher preparation program leading to full credentialing upon completing the traditional four-year undergraduate program in agricultural education. The agriculture teacher shortage has persisted for decades; not much has changed, except more teachers enter the profession through some “alternative” route. Are some of them good teachers? Of course. Do some four-year graduates wash out? Of course. But that is not the point. The overarching question is what is the implication for teacher preparation and in-service education? Go back to the section on state program and budgetary policy. Teacher education cannot resolve the issue alone. That means that teacher education must be engaged in and at the forefront of designing sensible teacher licensing programs that do not punish the traditional four-year graduate. The state agricultural education commission must lead the way. An important second point is the in-service education component. All teachers, regardless of experience or route to certification, need carefully planned, on-going professional development opportunities. Funding for in-service programs must be incorporated into state budgets, since most efforts would not be associated with tuition-generating programs as a

funding source. Teacher education must include both teacher preparation and teacher professional development.

**Summary.** I have had the privilege of seeing agricultural education from several vantage points: as a high school and university student, as a secondary school teacher, as a state supervisor, and as a teacher educator, along with some related administrative roles along the way. Agricultural education has served me well, and it is a pleasure to proudly share when asked that I am in agricultural education. The past 100 years of school-based agricultural education has been an unqualified success. Change has occurred, sometimes quickly, sometimes at snail’s pace. The outlook is also bright, but it all depends on the extent we are willing to evaluate the past and use what we have learned to build an even better future.



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“A generation which ignores history has no past —  
and no future.”

Robert A. Heinlein

## *Pathways: Past and Future*

by Robert Martin

**W**hat do you think about the future? I really don't know. I haven't been there yet." (Anonymous)

This is an interesting comment when you think about it. It is human nature to be cautious in thinking about where we are headed when we barely are used to dealing with the present challenges

Agricultural education will grow and develop in a variety of countries around the world and student exchanges will become major activities to provide linkages between and among students.

we face day to day. It is natural to say . . . "Well, we will deal with it when it comes, I guess."

All of us can reflect on our past experience with all the glory and some of the anxiety. We know our achievements and our challenges have made us better even though at the time we were going through these times of stress we questioned whether or not we could make it through the process. But we did make it. Change has a way of challenging us to learn, adapt and move on from where we are to where we may be headed.

As far as I can tell, we have gone through various stages of development in agricultural edu-

cation. Each stage has had its impact on the program as a whole. These stages can be defined in a variety of ways but I have chosen to call them "Pathways in Agricultural Education."

The Farming Pathway  
The Agri-Business Pathway  
The Agri-Science Pathway

You may or may not agree with the "Pathway" title or you may attach your own label, but

there is no denying that our profession is continually on a search for the pathway to the future.

### **The Farming Pathway**

For much of our history, agricultural education was truly vocational and the program focused on students returning to the family farm operation. Production agriculture was the glue that kept educational programs in agriculture connected to all other programs around the country. A program in the eastern part of the country looked very similar to programs in the mid-west, south and west. There were variations but, in general, the curriculum in one place looked like the curriculum in all other parts of the country.

For some students, The Farming Pathway is still appropriate, but the vast majority of students in agricultural education programs across the country have moved into other pathways.

### **The Agri-Business Pathway**

A new pathway in agricultural education was created when the agriculture programs across the country opened the curriculum to a variety of occupations related to and in support of production agriculture. These new and related areas of the curriculum attracted a significant number of new students, many of whom had not considered agricultural education as a career pathway for them. This program growth included the enrollment of women in agricultural education and membership in the FFA. The Agri-Business Pathway truly changed the depth and breadth of the program and changed the curriculum to focus on the wider scope of what it meant to be involved in the agricultural education program.

A large number of students no doubt still claim this pathway as their own. It seems to fit those students who have career goals that support other sectors of the agricultural industry in sales and services, forestry and conservation, horticulture, mechanics, products and processing and business management. Still others are moving on to the latest program emphasis that opens more doors to careers and technical education.

## The Agri-Science Pathway

The latest focus in agricultural education is the “science” of agriculture coupled with its closely related partners of technology, engineering, and math. Like the two previous pathways, The Agri-Science Pathway has opened new and exciting dimensions of the agriculture industry, literally changing the whole landscape of what we call modern day agricultural education. The science based curriculum is having a major impact on programs because of the applied nature of the study of agriculture in the context of the basic sciences of agriculture, namely biology, chemistry, physics and all the related subjects of math and engineering technologies.

Naturally there is some overlap from one pathway to the next, but each represents much of the heart and soul substance of the agricultural education program still focused on career development skills, successful learning experiences and personal growth and leadership.

Each of the pathways has contributed to the growth and development of the program at every level as well as the growth of the FFA membership, expansion of programs and the demand for more practical experiential learning systems. Agricultural education has a rich history and this history needs to be celebrated, but not to the extent that the past gets more attention than it deserves. But what does the future hold for agricultural education in the long term?



*There should be a careful follow-up of former students thru a continuation education program. (Photo courtesy of The Agricultural Education Magazine archives.)*

What we need is a clear outlook of the future and where it is that we are heading. Agricultural education must chart a future pathway that builds on the previous pathways keeping the spirit of the past alive as we prepare, plan, and organize programs for the future. The basic principles and mission of agricultural education clearly need to remain intact but how we go about getting to the next level is the question.

Perhaps we need to consider the use of information from those people who specialize in not only studying trends but also using those trends to project the future. What implications can we draw from this information for agricultural education as we plan the future direction of the program?

Gary Marx (2006) in his book titled *Sixteen Trends: Their Profound Impact on Our Future*, makes it clear what we face in the

society at large has implications to all of us as individuals in addition to agricultural education as a profession. Ten of Marx’s trends have implications to agricultural education.

The next 25 years will provide the opportunity for more growth of agricultural education programs, especially in urban schools. The majority of students will be from a variety of cultures and backgrounds. A major local effort will be launched to recruit and retain teachers of agriculture as communities realize agricultural education programs are programs that apply the basic principles of science, engineering, math and technology to real world situations. In addition, learning will be the major focus of our programs with teachers as facilitators, not just lecturers. And finally, agricultural education will grow and develop in a variety of countries

## *Marx's Trends*

<i>Trend</i>	<i>Characteristic/Meaning</i>	<i>Potential Impact/ Implications on Agricultural Education*</i>
Diversity	In Diversity there is strength	C, FFA, TE
Knowledge	Drives the economy	C, FFA, CO, SAE
Communication	Fast pace of communication will increase	C, FFA, CS
Standards	Measuring impact based on standards	TE, FFA, C
Continuous Improvement	Search for improvement	FFA, C
Security	Make food secure	C, CD, FFA
Diplomacy	Learn negotiating skills	CD, FFA, SAE
Personal Meaning	Search for meaning based on action	FFA, SAE, CD
Job Creation	Jobs not dreamed of yet	C, SAE, CD
Educators	Need for highly qualified educators	TE, CD
C = curriculum; CD = Community Development; TE = Teacher Education; FFA = FFA; SAE = Supervised Agriculture Experience		

around the world and student exchanges will become major activities to provide linkages between and among students.

As we review Marx's Trends, and contemplate the next 25 years, it becomes clear that our agricultural education programs have much work to do as we adjust to a new pathway. How should we title the new pathway? Should it be The Agricultural Education Pathway, The Agricultural Application Pathway or The Agricultural Awareness Pathway? Whatever title we use in this new era, let it be known that our pathway

has broadened because our relevancy has increased in a society that wants to chart a clear path to the future. Shall we wait for the future to arrive or plan for the future we want? One would hope we will dream the future we want and eventually make it happen.

So, what do you think about the future?

### **Reference**

Marx, Gary (2006). *Sixteen trends: Their profound impact on our future*. Alexandria, VA.; Educational Research Service. (p. iii – iv).



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# *A Silver Mirror and a Crystal Ball - Reflecting on the Past While Looking to the Future*

by Glenn Shinn

**G**eorge Santayana (1905), writing about experience and common sense, suggested, “Those who cannot remember the past are condemned to repeat it.” Thus, Santayana urged reflection on our past in agricultural education as we adapt to the future.

Many suppose that agricultural education began with the Smith-Hughes Act of 1917. Football analyst, Lee Corso, might say—“not so fast, my friend.” In the 1987 *Agricultural Education Magazine*, Editor Blannie Bowen and a collection of eight distinguished authors wrote of the 70<sup>th</sup> anniversary of Smith-Hughes, recognizing the prior policies and practices in some detail. Further, legislation preceding Smith-Hughes and the systematic program of vocational agriculture began with the Morrill Act of 1862, Hatch Act of 1887 and Smith-Lever Act of 1914. Federal legislation framed and reframed the content, context and culture of agricultural education and, to an extent, reframed its educational philosophy.

## **Smith-Hughes in a Capsule**

The 19<sup>th</sup> century was marked by expansion of American frontier, civil conflicts and the beginning of the industrial revolution. Agriculture was slow to transform, but mechanization began to substitute for farm labor. Two inventors propelled the agricul-

tural revolution. In 1831, Cyrus McCormick built a “mechanical reaper” and in 1837, John Deere crafted a steel plow.

By 1917, the U. S. population was 103,268,000 and 27 percent of the labor force worked on farms. Many children worked on farms and most, especially boys, discontinued schooling before completing the 8<sup>th</sup> grade.

Philosophically juxtaposed with traditional liberal education,

have entered upon or who are preparing to enter upon the work of the farm.” The Smith-Hughes Act provided federal funds for this purpose—“less than college grade”—and thereby encouraged high school graduation.

## **Consequences of Smith-Hughes Legislation**

For the first time, the Smith-Hughes Act provided federal funds matched with state-local funds. Federal dollars were restricted to

The future requires collaboration, deep engagement and higher aspirations, not only from students and parents, but also from agribusiness, policy-makers, educators and communities.

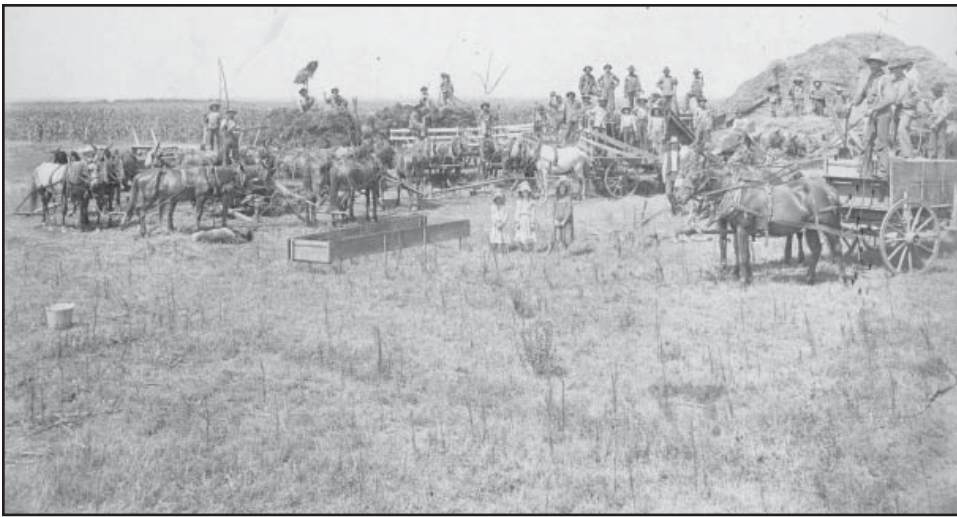
educational leaders advocated the moral, educative and practical value of work and the need for a better educated workforce. Within philosophies, Dewey favored a progressive approach while Snedden advocated more narrowly focused, skill-based training.

Things were changing, albeit slowly. Money was scarce in 1917—there were two million unemployed workers. Farm workers earned less than one dollar per day.

Subsequently, Congress recognized a need for vocational agriculture “to train people who

vocational teacher’s salary, travel and equipment. It was a game-changer in 1917.

Led by the federal initiative and baited by earmarked dollars, states developed a standardized agriculture program model and a sequence of courses, usually identified as Vo-Ag I, II, III and IV. Instructors used new “project-based” teaching methods. Shop work, case studies and field trips were a regular part of the curriculum. Problem solving, with five steps, was a staple strategy for addressing relevant farm problems. Rows of chairs were re-arranged into the



*In 1917, farming was labor intensive. Congress recognized a need for vocational agriculture “to train people who have entered upon or who are preparing to enter upon the work of the farm.” The Smith-Hughes Act provided federal funds for this purpose—“less than college grade”—and thereby encouraged high school graduation.*

Vo-Ag U to encourage discussion and supervised study. Content was organized around the agricultural calendar, with problem-based lessons preceding actual jobs on the farm. There were policies requiring “day programs” to release teachers after 1 o’clock for supervising projects and community work. The “Vo-Ag Instructor” was positioned in the community as a trusted teacher, advisor and leader.

### **Unintended Consequences of Smith-Hughes**

Federal policies created a separation of funds and a separate state board for vocational education. This split often pitted the boards on policy and practice. Schools and students were already segregated by race and gender. Now schools were differentiating education by federal policies and finances. The program model tended to accelerate segregation and isolation from general education.

Because of the separation, students were sometimes tracked in schools that had previously embraced a single common education. Critics accused the programs of promoting an ideology that was guided by corporate economic priorities and values.

### **Evolution of Smith-Hughes -1917-1963**

Over 45 years, there were substantial changes in subject content, national context, and values of society, including agricultural education. Federal legislation played an expanding role in the changes. Even so, vocational agriculture continued a standard program design; rural schools, a community-based curriculum, separate facilities, male teachers, 60 or fewer students per teacher, 12-month employment, funds for travel and professional development and a separate operating budget. Still, farming was difficult.

Youth leadership was recognized as a crucial element for demonstration of innovations and practices. Patterned from Virginia’s model, the Future Farmers of America was chartered in 1928 and New Farmers of America chartered in 1935. The two national organizations advocated “a greater opportunity for self-expression and for the development of leadership. In this way, they will develop confidence in their own ability and pride in the fact that they are farm boys.” It worked. In 1950 President Truman signed PL 81-740 granting FFA a federal charter and specifying a USDE staff member be the national FFA advisor.

Over time, a series of post-war legislation authorized and expanded other vocational programs. Federal dollars incentivized change, including state supervision, vocational counselors, and work experience programs. Funds were also authorized for out-of-school youth programs and to support travel associated with FFA and NFA.

### **In 1964 Bob Dylan Wrote, The Times They Are a-Changin’**

Over time, the Smith-Hughes Act was substantially rewritten through the Vocational Education Act of 1963 and successively amended in 1968, 1971, and 1984. The organic Smith-Hughes Act was repealed in 1997. Changes emphasized access and the elimination of sex bias in vocational education. The FFA absorbed NFA in a federally-mandated take-over in 1965 and females gained FFA membership in 1969.

## The Vocational Education Act and Perkins Acts in a Bottle—

From 1917 to 1963, the U.S. population rose to 189,241,798 while the on-farm labor force dropped by one-half; to 8 percent of U.S. population. Nonetheless, science and technology and the context of rural life created changes needed in vocational education and agricultural education.

Largely influenced by the Vietnam War, the 1960s brought turbulence to the American landscape. President Kennedy was assassinated on November 22, 1963. Civil rights was a national concern. Farming had adopted mechanical systems and applied agrichemicals. Rachel Carson countered by publishing *“Silent Spring.”* Secondary school completion became the norm and vocational agriculture was firmly established, especially in rural high schools.

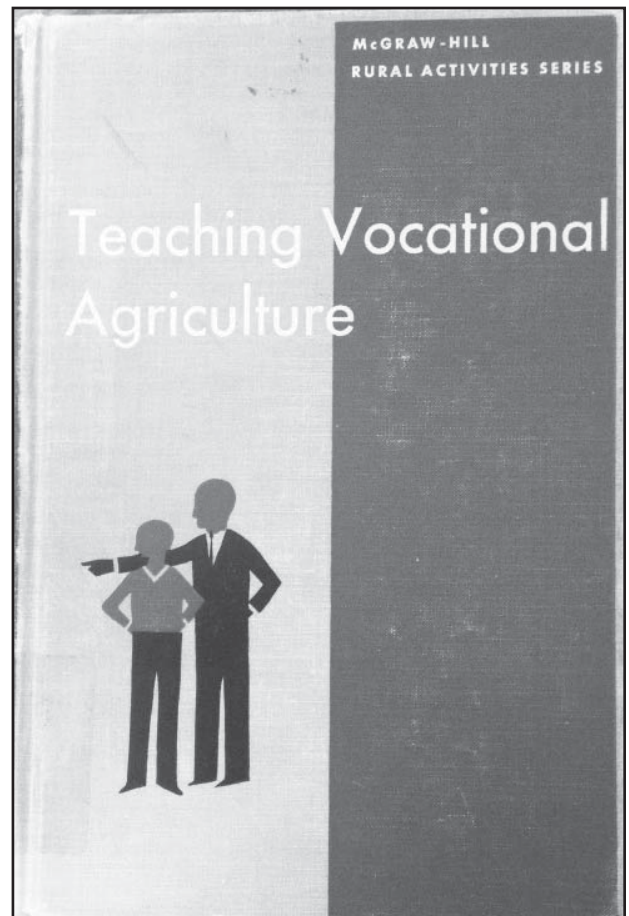
In December 1963, President Johnson signed the Vocational Education Act, PL 88-210, saying, “Modern demands upon labor and industry requiring new skills and an upgrading of old skills, require more education and greater knowledge.” A perceived international achievement gap increased concerns that America was not adequately preparing a competitive workforce of new workers—women, minorities and immigrants. The Elementary and Secondary Education Act of 1965 blurred the lines between academic and vocational education.

Compounding the turbulence were megatrends, including population growth, disruptive

technologies, environmental degradation, migration-immigration, and global terrorism. Clearly, education and work—including agriculture—were becoming increasingly complex. Congress recognized these societal trends with waves of educational reforms. Things were changing and the tempo and intensity were increasing.

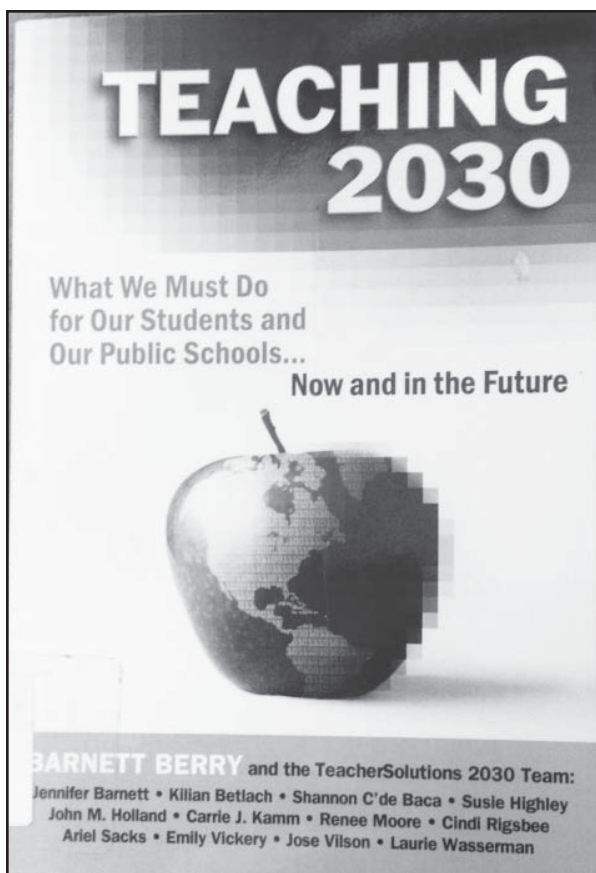
### Consequences of Federal Legislation - 1963-2015

The first sea-change for education called for increased rigor and relevance from the current system, including agricultural education. States increased academic course requirements, extended school days, and emphasized standards and testing for both students and teachers. Universities raised entrance requirements. In 1971, U.S. Commissioner of Education Marland reframed educational philosophy by transitioning vocational education to career education. Marland’s view spanned K-12 and combined vocational, general, and college-preparatory education into a curriculum designed to prepare individuals for economic independence, personal fulfillment, and an appreciation for the dignity of work. There was resistance in several camps.



*Over 45 years, there were substantial changes in subject content, national context, and values of society. Even so, vocational agriculture continued a standard program design. The “Vo-Ag Instructor” was positioned well in the community as a trusted teacher, advisor and leader.*

A second sea-change spawned from the 1983 release of President Reagan’s National Commission on Excellence in Education report. Titled *A Nation at Risk*, the report attacked a “rising tide of mediocrity” in education equivalent to a foreign act of war. The Commission charged that the current system was failing to meet the national need for a competitive workforce. Change was focused on five categories: content, leadership and fiscal support, standards and expectations, teaching, and time. There was an effort to improve school-to-work transitions.



*As agricultural educators, we face grand challenges requiring our best efforts in leadership, education and communications. Programs benefit from a standard design, but different from Smith-Hughes. The goal is for aspiring students to acquire the knowledge and skills necessary for college degrees and industry certification in high-demand, STEM-centered fields—and continue lifelong learning in a world filled with change.*

The 50-year trends substantially increased the federal footprint on education. While the trends increased flexibility, expectations were raised for all students. These trends were coupled to broad, test-based elementary and secondary legislation that increased attention to curriculum alignment, increased time taking tests, encouraged mentoring of underperforming student groups and reduced funding from man-

dated responsibilities.

### **Unintended Consequences of Legislation - 1963-2015**

Definitions and philosophies changed in the confluence of legislation. Manley (2010) concluded that changes to within-state funding formula had negative effects on secondary CTE programs. The funding changes also negatively affected teacher education, state-level research initiatives, and the ability to provide local schools with assistance.

In the late 1990s, a fusion of legislation; the Americans with Disabilities Act, the Perkins Acts, and No Child Left Behind; had an adverse impact on CTE at the secondary level. Agricultural education enrollment and FFA membership declined precipitously.

### **Evolution of Federal Legislation - 1963-2015**

Like the first half-century of the 20<sup>th</sup> Century, the last half-century further accelerated change in agricultural education. Led by Carl D. Perkins, (D-KY), Congress recognized the increasing value of postsecondary programs and authorized special programs for disadvantaged students. Amendments sought to improve achievement in reading, mathematics, and communications. Populations,

including handicapped and disadvantaged students, remained a consistent priority.

In 2006, Perkins IV increased focus on academic achievement of students, strengthened connections between secondary and postsecondary education and increased state and local accountability. Perkins IV expired in 2012, but it was extended through FY2016. Clearly, agricultural education continued to experience rapid change and turbulence—with more change occurring during the Perkins era than in the first half-century .... and with more change to come.

### **A Crystal Ball—2030**

Mark Twain said, “It is difficult to make predictions, particularly about the future.” However, consistent with the past, there are megatrends that signal the future. Richard Smalley (2003), a Nobel Prize winning physics laureate, identified humanity’s top challenges for the next 50 years. Five of these grand challenges; energy, water, environment, disease, food; are associated directly with agricultural education. Complex problems require collaboration by teams applying science, technology, engineering and mathematics (STEM). Yogi Berra was correct, “The future ain’t what it used to be.”

Population and demographics from 1917 through 2015 indicate continuing population growth in both the U.S. and the world. Add urbanization; now more than half of world population; and the strain increases. Concerns about food,

resources and climate change intensify as the U.S. population grows to a projected 364 million by 2030 and a world with 8.5 billion. Climate change and food security are influenced by science, technology and human behavior.

The plow remains a symbol of labor and tillage of the soil. However, technologies are transforming agriculture and education. A new wave of technological advances create “apps” that change the way we learn, work and live. Without labor and technology neither knowledge nor wisdom can accomplish much. Success also depends on well managed economics and market chains. Global trade, economic reforms and freer movement of capital and technology from the U.S. to the developing world will restructure agriculture and education.

Addressing these apparent challenges requires our best efforts in leadership, education and communications.

### **Reshaping Agricultural Education - 2030**

While “less than college grade” was appropriate for Smith-Hughes, a P-20 STEM-based curriculum forms the foundation for the 21<sup>st</sup> century. Agricultural education combines technical content, contextual relationships and a culture to encourage postsecondary education. Most importantly, students benefit from active learning that interconnects learning with curricula and careers, including supervised agricultural experiences, entrepreneurship, mentoring, research and internships.

### **Developing Premier Leadership, Personal Growth and Career Success**

Agricultural education will continue to benefit from a standard program design, but different from Smith-Hughes—rigorous and clear curriculum pathways, professional development for teachers, engaging new methods of teaching and learning, and a focus on assessment and accountability.

Well planned curriculum for agricultural science leads from elementary to middle grades to early college high schools with a strong emphasis on non-fiction writing, scientific methods of data analysis, frequent assessments of student progress with multiple learning opportunities to improve, and advancement via individual determination (AVID) closing the achievement gap. With high expectations and aspirations, P-20 achievement can be attained by 90 percent of the students, including those of minority or low socioeconomic status.

Teachers benefit from instructional coaches, common planning, collaborative scoring of students’ work, peer observations, and corrective feedback. Active teaching and learning methods draw on project-based learning and common instructional frameworks that include collaborative group work, simulations, writing to learn, questioning, scaffolding, classroom talk, and literacy groups. Systematic, research-based lesson cycles encourage students to conduct their own investigations, draw their own insightful conclu-

sions, and create their own persuasive analysis.

Like land-grant legislation, advancements involve partnerships among local communities, business and industry, and state and federal agencies. Strong collaboration with business and higher education partners increase P-20 alignment and articulation, adoption of new educational technology platforms and increased professional development opportunities for teachers.

Past strategies and methods will not solve present or future educational problems. In *The World is Flat* (2007), Thomas Friedman assured “this is not a test, it is a real emergency.” Paraphrased, Friedman said the curriculum must provide access to knowledge, but students must take advantage of it.

Peter Drucker warned, “The greatest danger in times of turbulence is not the turbulence – it is to act with yesterday’s logic.”

In summary, the future requires collaboration, deep engagement and higher aspirations, not only from students and parents, but also from agribusiness, policy-makers, educators and communities. The goal is for aspiring students to acquire the knowledge and skills necessary for college degrees and industry certification in high-demand, STEM-centered fields—and continue lifelong learning. Still, like 1917, concerns remain around poverty and productivity with an eye on trends. Wayne Gretzky, arguably hockey’s greatest player and coach, advised, “Skate to where the puck



Members of the Texas A&M Collegiate FFA assisting with grading and tabulating scores at the State Judging Contest. (Photo courtesy of The Agricultural Education Magazine archives.)

is going to be, not where it has been.”

## References

- Bowen, B. E. (1987). Smith Hughes. *The Agricultural Education Magazine*. 59(8) Retrieved from [https://www.naae.org/profdevelopment/magazine/archive\\_issues/Volume59/v59i8.pdf](https://www.naae.org/profdevelopment/magazine/archive_issues/Volume59/v59i8.pdf)
- Bryan, D. (2012). *The Great (Farm) Depression of the 1920*. American History USA. Retrieved from <http://www.americanhistoryusa.com/great-farm-depression-1920s/>
- Camp, W. G. & Crunkilton, J. R. (1985) History of agricultural education in America: The great individuals and events. *The Journal of the American Association of Teacher Educators in Agriculture* 26(1) 57–63.
- Fravel, P. M. (2004). *A history of agricultural education in South Carolina with an emphasis on the public school program*. (Unpublished doctoral dissertation). Virginia Polytechnic Institute & State University. Retrieved from <http://scholar.lib.vt.edu/theses/available/etd-04242004-202220/unrestricted/FravelDissertation.pdf>
- George Santayana (1905). *Reason in common sense*. V.1, p 284. Retrieved from [https://www.wikipremed.com/reading/philosophy/The\\_Life\\_of\\_Reason.pdf](https://www.wikipremed.com/reading/philosophy/The_Life_of_Reason.pdf)
- Gordon, H. R. D. (n.d.) Vocational and technical education - current trends, preparation of teachers, international context. *Educational Encyclopedia*. Retrieved from <http://education.stateuniversity.com/pages/2536/Vocational-Technical-Education.html>
- Hillison, J. (1985). Agricultural teacher education preceding the Smith-Hughes Act. *The Agricultural Education Magazine*. Retrieved from <http://pubs.aged.tamu.edu/jae/pdf/vol28/28-02-08.pdf>
- Manley, R. A. (2010). *The intended and unintended consequences of the 1990 Carl D. Perkins Vocational and Applied Technology Act within-state funding formula change: A modified policy delphi study*. (Unpublished doctoral dissertation). Virginia Polytechnic Institute & State University. Retrieved from [http://scholar.lib.vt.edu/theses/available/etd-04092010-161241/unrestricted/Manley\\_RA\\_D\\_2010.pdf](http://scholar.lib.vt.edu/theses/available/etd-04092010-161241/unrestricted/Manley_RA_D_2010.pdf)
- Marland, S. P. (1971). *Career education*. Retrieved from <http://eric.ed.gov/?id=ED056203>
- Parr, B. & Edwards, M. C. (2004). Inquiry-based instruction in secondary agricultural education: Problem-solving – An old friend revisited. *Journal of Agricultural Education*. 43(4) 106-117. Retrieved from <http://pubs.aged.tamu.edu/jae/pdf/vol45/45-04-106.pdf>



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## *Be of Good Courage*

*Editor's Note:* This article was originally published in the first issue (Volume 1, Issue 1) of *Agricultural Education*, January 1929. *Agricultural Education* was the original name of *The Agricultural Education Magazine*. At the time Dr. Lane was, Chief in Agricultural Education, Federal Board for Vocational Education.

by C. H. Lane

Not only the student of rural affairs but also the man of the street holds up Denmark as the one shining example of where agriculture has come into its own. Here we are told cooperation flourishes. There is uniform prosperity among the farming classes. High class products are produced under ideal conditions. Everything is ideal we are told.

Perhaps at the beginning of the year it might not be amiss to inquire a little into the real cause of the transformation of Denmark from a nation of peasant farmers to a nation of prosperous independent freeholders in a little over fifty years.

First, of course, came the breaking up of the large estates and the settlement of these on easy terms by the farmers of the nation. Then under the leadership of a far-seeing, patriotic leader, community high schools were established. Here for fifty years has been the nucleus of Danish life and agriculture. Here is the basis of the widespread cooperative effort in Denmark. Here all the social and

economic life of the community centers. The educational system of Denmark is the key to the transformation that has taken place.

Today in the United States we have the same opportunity that the Danish farmer of fifty years ago had. Approximately 3,600 vocational agricultural departments or schools have been established in the forty-eight states. There was a

ect and by doing supplementary farm jobs. Improvement has also been noted recently in the grade of work performed by the teachers. Teachers are now beginning to check the pupil on the quality of his work or the degree of proficiency of the pupil in his performance. The improvement in this phase of the agricultural program is indicated by the fact that

Unquestionably the thing which will eventually bring about better living on the farms is the education of the farm boys and girls who will be the future farmers.

total enrollment in these schools of over 144,000 in 1927-28. We have now reached about the 100,000 mark enrollment of all-day students with approximately 37,000 adults in the evening schools. Each of these schools has the chance of becoming a center of community development, as indeed many of them are today. Here is a new focal point of affairs of common interest.

All persons pursuing courses in vocational agricultural are required to do at least six months directed or supervised practice in agriculture, either on a farm provided for by the school, or other farm. Rather marked improvement has been made along this line as indicated by the scope of activities of the pupils. The scope has been greatly enlarged to take in more than one home proj-

the returns from the supervised practice of vocational pupils for the United States from 1926 to 1927 were \$10,991,135.19, compared with \$8,256,600.01 for the previous year, or an increase of \$2,734,535.18.

The foregoing net income from supervised practice for 1927 and 1928 represents various activities on the part of vocational pupils. It should be noted that there were 3,755 hives of bees, 4,874 pigeons and 4,784 rabbits. For the most part, these enterprises do not represent major activities of the pupils, but purely supplementary to the carrying on of their major work in the cultivation of crops or the caring of regular farm livestock.

In round numbers there were 111,817 pupils cultivating 460,077 acres of land, with 115



*Dr. C. H. Lane (Photo courtesy of the Digital Collections, IUPUI University Library, National FFA Organization Images)*

hotbeds. They cared for 17,174 yearling cows, 1,519 calves, and 88,555 hogs. In the poultry work there were 1,930,677 birds which included hens, ducks, turkeys and geese. The pupils also incubated 98,485 eggs and 5,617 animals and 40,492 sheep were cared for in meat and wool production.

Reference is frequently made to the part education has played in successful cooperative effort in Denmark. It may be of interest to readers of this magazine to know what is going on along this line in the United States with agricultural teachers. In 1927 the Bureau of Agricultural Economics of the United States Department of Agriculture made a survey of the situation and found that approximately 50,000 high school students are now receiving instruction in co-

operative marketing. Approximately 5 percent of the more than 1,500 schools from which reports were received were giving special courses in cooperative marketing, 53.7 percent were teaching the subject in general agricultural courses, and 55 percent in connection with commodity projects. Of the schools teaching cooperative marketing 43 percent reported the sale thru cooperative associations of products grown in school projects, 55 percent reported that they had contracts with and received assistance from officials of cooperative associations, and 48 percent reported that their classes

visited the offices or plants of associations. The frequency of the visits varied from twice a week to once in four years with "once a year" being reported most commonly.

Another interesting feature of the survey was that 203 schools in 40 states reported that a total of 1,386 students were themselves members of cooperative associations and 467 schools in 45 states reported 4,978 pupils who were the children of members. Practically all schools where cooperation was taught reported that the usual interest on the part of students, and nearly all made requests for assistance in the selection and on the use of subject matter.

The department report says that there seems to be two impor-

tant services the schools can and to some degree are rendering to cooperative marketing. The first is of course the splendid work the schools are doing in giving prospective farmers and farm women a knowledge of cooperation and in training future leaders in the movement. The second is adult education and advice in local marketing problems.

Education of the children in the ways of better farming principles and practices is only one of the functions of such a school. The facilities of the shop and classroom can be extended to that larger group who do not attend high school. Even the older folks are being reached thru the many activities possible in an agricultural high school with the right kind of leadership.

The emphasis throughout in this national program of agricultural instruction of less than college grade is an education as a continuing process - a part of life. I say this because the 4,000 vocational agricultural teachers are of necessity in the closest contact with farming and farm life in their respective communities. They are coming to know the felt needs, longings and aspirations of the farming population as no other group of rural workers can possibly come to know them. These teachers who have been reared on farms and given the best training that is possible at present to give them in our land grant colleges and their wider philosophy of rural living than just merely making

*continued on page 27*



## Which Way Vocational Agriculture?

*Editor's Note:* This article was originally published in the first issue of *The Agricultural Education Magazine*, July 1937 (Volume 10, Issue 1) after the name of the publication was changed from *Agricultural Education*. At the time Mr. Lenke was Chief, Agricultural Education Service, Office of Education, Washington, D.C.

by J. A. Lenke

The story is told in an old novel entitled *Quo Vadis* how Peter, while working in Rome, became discouraged and started to leave the city. As he was passing out of the gates he was met by Jesus coming into the city. Peter saluted his Master with these words, "Quo vadis, Domine?" which when interpreted means, "Whither goest thou, Lord?" The story represents Christ as saying to Peter, "I am going to Rome to die again for the great cause if you are leaving." The story states that Peter turned back into Rome and there met his death in the cause of his Master.

This story may be applied to the cause of vocational agriculture. Teachers may become discouraged in their work and need to be turned back with renewed interest. Also, the boys studying vocational agriculture who are going back on the farms to take the places of those farm boys who have become discouraged and left the farm, not only need encouragement but the kind of training necessary to make a success of farm life in the country.

We now stand at the crossroads in vocational agriculture. As we look back over the way we have come we see many problems we have solved. Many changes and improvements have been made in the program, such as improvements in objectives, methods of instruction, courses of study, supervised practice, supervision, teacher-training, and research. As we take a look into the future we see many problems ahead of us, many difficulties to be overcome, and we may rightly ask the ques-

"Training for proficiency in farming" is the motto which should be kept constantly in mind in setting up future programs in agricultural education. It is very important to have a real program with definite objectives and ways and means for reaching these objectives. In other words, you should know where you are going and set your stakes to arrive. If you do not set your stakes carefully you are liable to lose your way and wander far from the road that leads to your goal. (Bulletin 153)

"Which way vocational agriculture?" is largely in the hands of supervisors, teacher trainers, and teachers of agriculture. The programs which we build and execute will be the answer, whether good or bad.

tion, "Which way vocational agriculture?" Which road shall we take? Shall we turn to the right or left, to other jobs? Shall we turn back and lapse into an easier life on the job we already hold, or shall we take a new lease on life, go straight down the road ahead and make plans to render a larger service to the farm people in our states and communities?

The answer to this question, "Which way vocational agriculture?" is largely in the hands of supervisors, teacher trainers, and teachers of agriculture. The programs which we build and execute will be the answer, whether good or bad.

The new appropriations under the George-Deen Act should enable us to establish the teaching of agriculture in a high percentage of the 15,000 rural high schools where it is possible to locate departments. This should be encouraging in our future outlook because we can make our plans well in advance from year to year without the uncertainty of funds, as in the past.

In setting up state programs, supervisors and teacher-trainers should organize long-term programs, keeping in mind the main objective of training for "proficiency in farming." All activities such as individual, district, and

state conferences; resident, itinerant, and practice teacher-training should be so planned as to point toward this goal. The teacher in planning his long-term program should set his stakes to reach the same goal. Some of the stakes to be set up are as follows:

### **Surveys**

Each teacher of agriculture should make a complete farm survey of his community to determine the needs of the farmers in improving their methods of farming and managerial responsibilities. A study should also be made of markets and market demands in order not only to determine what enterprise to emphasize but also what potential enterprises might be established in the community. A teacher cannot hope to do his best work without careful surveys in order to adjust his program to the needs of farm people.

### **Program of Work**

After the farm surveys are completed, the teacher should make a careful analysis of these surveys in order to set up his long-time program, built on the needs of the farmers which this analysis shows. His plan should include a carefully organized supervised farming program. An analysis should be made of each enterprise, and his yearly plans of instruction should be based on the problems which arise in the supervised practice of his students.

### **Reaching the Largest Possible Number of Farm People**

When the teacher has set up his program of instruction, includ-

ing his supervised farming and teaching plans, he should make every effort to include as many farm people as possible in this program. The more people he reaches the more service he will be rendering to his community. Some teachers are satisfied to teach the 15 to 20 farm boys who are enrolled in their high school classes, while other teachers are organizing part-time and evening classes for out-of-school farm boys and adult farmers. In this way they are reaching some 100 to 150 farm people thru systematic instruction in agriculture. These teachers are the ones who are putting vocational agriculture on the map and getting the support of school authorities and the farm people. This also is securing the best kind of publicity for the work.

### **Continuation Education in Agriculture**

We do not have the farm boy in high school long enough to give him sufficient training for successful farming. Therefore it is necessary to continue his training thru a series of years in part-time and evening classes after he leaves high school. If we could carry on a program of training with students of vocational agriculture for ten or more years, then we can hope to reach our goal for training for "proficiency in farming." If we make this our goal, then it is necessary to organize a continuation education program for boys after they leave high school for the farm. These boys should be coming back to school in part-time classes in further preparation for farming. This is the period when

they can be devoting their entire time to building up their farming activities in preparation for becoming established in farming on a permanent basis.

### **Placement**

One of our responsibilities in the training program is to help those we have trained to get placed in farming for themselves. Too many of us think our responsibility with the boy ends when he leaves high school. If we train a boy for a vocation, then we should make every effort to help him get placed on the job for which he is prepared. The Farm Credit Administration and the Federal Land Banks have expressed a willingness to help well-trained boys in the purchase of farms. Teachers should make a careful survey of farms in their communities for sale or rent. Sale prices and the conditions on which farms can be purchased or rented should be determined in order that the teacher can assist in getting worthy boys placed on these farms. Placement is one of our most important jobs. We cannot expect to improve farming conditions in our patronage areas unless we can get those we have trained placed on farms in the community. One of the great problems in agriculture is to get the land which has gone into receivership back into the hands of farm people.

We might think that our obligation to the vocational student ends when he gets placed on the job, but here is one of the most crucial periods of his career and his success or failure may depend on his ability to solve the many

problems facing him at this particular time. There should be a careful follow-up of former students thru a continuation education program in evening classes where adult farmers can discuss their farm problems and devise ways and means of improving their farming programs. This does not mean that the enrollment in evening classes should be limited to former vocational students. These classes (both part-time and evening) should be open to all interested farmers.

### **Follow-up Records**

A follow-up record should be kept of all former vocational agriculture students for a period of from 15 to 20 years to determine whether the training program has really functioned in improved farming as compared with the average farmer in the neighborhood. This is the final test of your work as a teacher of agriculture. If the record shows no improvement then something is wrong with your program and it will need to be changed. If it shows improve-

ments then you will know that your program is getting good results. You will also know whether you are worthy of your hire and that vocational funds are being well spent for education in agriculture. If the above stakes are well set and your program is so organized as to reach each of these stakes as you progress toward the goal, then I would say that you are on the right track to "catch the fox."

## *Be of Good Courage* (continued from page 24)

money by running a farm where a man may be an expert at growing crops and feeding livestock and in marketing his crops and still his life be a failure.

The primary object of "Better Farming" and "Better Business" on the farm is to make it possible for the farmer and his family to live better. This philosophy permeates the whole national program of vocational education in agriculture that we have been referring to in this article. It is permeated by the thought that better living, having more attractive farm homes, more convenience in the homes, better schools, better churches, better roads, and many other things that help to make life in the open country more enjoyable.

In closing this article let me leave this thought with you because it is the thought that underlies the educational philosophy

of our teachers of vocational agriculture and that is: Better Farming does not always result in better living. Many a farmer and his family toil early and late in order to be able to burn the mortgages as quickly as possible. Often so much attention is given to getting out of debt in a hurry that many of the finer things of life are lost sight of. The use of the long-time mortgage, which can be paid off gradually, can do much to help the farmer to live better while paying for his farm. If all the good things of farm life are put off until the family gets out of debt and has money in the bank besides, they may never enjoy it.

Unquestionably the thing which will eventually bring about better living on the farms is the education of the farm boys and girls who will be the future farmers. Farm boys and girls should learn more about the opportuni-

ties in other lines of work and the advantages and disadvantages of the conditions under which others work and live.

Those who choose farming should know how to succeed as farmers and should understand how to make their community a better place in which to live. When farmers as a group learn to feel that they must have better homes, better schools, better churches, better roads and more recreation, if farming is to be more attractive to them than other work, they will gradually acquire these things. It is therefore thru the improvement of the general standard of living that the farmers of America, and I am thinking particularly of those who will be the product of the Smith-Hughes work, may hope to secure the basis of a satisfactory life.

## ***EDITORS: 1929 – 2018***

### ***Agricultural Education***

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### ***The Agricultural Education Magazine***

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