



Nevada Association of Counties
304 South Minnesota Street
Carson City, NV 89703
(775) 883-7863

www.nvnaco.org

September 1, 2016

Chairman Trachok and NSHE Board of Regents
2601 Enterprise Road
Reno, NV 89512

Dear Chairman Trachok and NSHE Regents,

The Nevada Association of Counties (NACO) is the statewide organization representing all of Nevada's 17 counties. NACO is submitting this letter to voice the counties' concerns regarding the University of Nevada's Cooperative Extension (UNCE), including the proposed consolidation of Cooperative Extension with the College of Agriculture, Biotechnology and Natural Resources and the Nevada Agricultural Experiment Station, which you will be hearing at your September 8-9 meeting (Item #25 on your main agenda and Item #6 on your Academic, Research and Student Affairs Committee's agenda). NACO has followed the consolidation issue since it was officially proposed a year ago. We believe that the proposal is lacking both justification and analysis - we have not seen evidence that consolidation of UNCE with CABNR will better serve either the counties, the citizens of Nevada, or even create significant beneficial synergies within the University. A larger concern, and one that we fear the consolidation is a symptom of, is what Nevada's counties see as a clear lack of advocacy and support by the University's Administration for the Cooperative Extension Program overall. This has occurred despite the fact that UNCE is not only a central part of UNR's land grant mission but is also a vital connection between Nevadans and the University.

Counties provide the largest single funding source for UNCE. Though State Extension funding was cut by 70% in 2009, resulting in a 57% reduction in positions, counties chose to fund their portion of Extension at the same levels, and all but one county continues to do so to this day. The fact that counties maintained their UNCE funding during a time when many were forced to reduce and eliminate vital services as well as positions is evidence of the importance of Extension to local communities. And as the largest funders, counties are not only stakeholders in Cooperative Extension but are truly full partners, as well as one of the conduits through which Cooperative Extension works in local communities. Counties are



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specifically worried about the lack of support for UNCE in regards to the funding. We understand that there has been significant restoration to the other University programs that were cut in 2009 and yet UNCE has received only a \$500,000 increase, the smallest of any existing program. And even this \$500,000 increase was not requested by the University but was instead initiated and supported by various stakeholders including counties. Looking forward, counties are also worried about the absence of any future plan for funding and support of UNCE, including the failure of the consolidation plan to meaningfully address funding and budget issues. One additional concern for counties is the lack of any effort prior to the announcement of this consolidation proposal to include county partners in the discussion or include county input; county stakeholders have also not been included in a general advisory role regarding Cooperative Extension for some time. One example of this is the abolishment of the Cooperative Extension Advisory Board in January 2014.

To say that the Extension program in Nevada is vital and yet has been underfunded doesn't do this situation justice - for truly, Cooperative Extension is at the heart of UNR's mission and has for some time lacked the stewardship to assure that this program will effectively continue to help carry out the land grant mission of the University, a mission that other Extension programs are able to successfully carry out in land grant universities across our country. Also, UNCE is an award winning program of which you should be proud. UNCE is the only extension program in the country whose faculty, within the past ten years, received the National Excellence in Extension Award twice. UNCE has received numerous other awards including awards for programs that simultaneously support, and provide research on, Nevada's kids and families, many of whom are from underserved and ethnically diverse populations. We ask that you take into serious consideration the decrease in financial support for this program, the affect that it is having, and begin to look at ways to restore funding immediately and into future biennia. Counties have been told numerous times that it is too late now to include additional funding for UNCE in the current budget proposal - this is despite the fact that counties brought their concerns regarding funding to the Administration prior to the beginning of the current budget process. We would also add that, as counties are the largest funders of this program and have continued to fund their share of the program without cuts, our members have made it clear that they find it increasingly difficult to explain to their residents the contribution of their tax dollars to a program that they see first-hand being diminished without equal investment from the institution in which the program has its home.



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Additionally, we would request that, if consolidation does go forward, the Administration meet those assurances requested by counties that were agreed upon in the two correspondences and meetings that occurred between a NACO working group and UNR leadership earlier this year. It was our hope that those assurances that had been agreed to would have been included in the proposal before you. Unfortunately, the second set of correspondences regarding the assurances were not included in your packet and so we have attached: the June 7, 2016 letter from Provost Carman to NACO, and the preceding April 11, 2016 letter from NACO to the Provost. The discussions regarding the requested assurances have been helpful in beginning to restore trust and assuring that UNCE will, at the least, not be further compromised from an administrative standpoint if consolidation does go forward. Official approval of these assurances by your Board would be ideal.

Finally, we are aware that you are embarking on a process of self-assessment regarding the needs of NSHE and Nevadans, and that there also may be a strategic planning exercise in the works. We see no better time than now to refocus attention to the Cooperative Extension Program and the issues that we have outlined above. We urge you to make the University's land grant and outreach mission and goals a part of both NSHE's self-assessment and any future strategic planning exercises.

We would leave you with the following regarding the importance of Extension not only to UNR but to NSHE as a whole: it is imperative for you to know that UNCE also functions as your outreach arm. Cooperative Extension is for many Nevadans their first and only interaction with the University system – it is in effect your ambassador to Nevada's communities as well as to future students and their families. Throughout the State just some of what UNCE does includes programming for families and children at risk and support for economic development and natural resources related issues. UNCE is the face of the University system in Nevada's communities and brings University knowledge and research to the people as well as Nevada specific data and local research opportunities back to the University. As the attached *UNCE Centennial Program Highlights* shows, in 2013 alone Extension had over 550,000 contacts with youths and adults throughout the State, over 1.3 million hits to their website, procured over \$4.5 million in grants, and produced 63 new educational publications. In just one example of the negative impact of cuts to UNCE, the number of publications produced since 2013 is down by half....



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We urge you to make this program and its mission the priority that it should be, as well as to engage counties as the true partners that they are.

Thank you for your service and your attention to this matter.

Sincerely,


Commissioner Laurie Carson
NACO President

cc: Chancellor John V. White, UNR President Marc Johnson, Provost Kevin Carman, Dean William Payne, Dean Mark Walker, Commissioner Jim French, Commissioner J.J. Goicoechea, Commissioner Jeanne Herman, Commissioner Marilyn Kirkpatrick, Jeffrey Fontaine (NACO), Dagny Stapleton (NACO)

Enclosure



University of Nevada, Reno

Kevin R. Carman
Executive Vice President & Provost

7 June, 2016

Clark County Commissioner Marilyn Kirkpatrick
Eureka County Commissioner J.J. Goicoechea
Humboldt County Commissioner Jim French
Washoe County Commission Jeanne Herman

Dear NACO Colleagues,

This letter is a response to your letter dated April 11, 2016. I am pleased that we have made progress and that my responses to many of your “assurances” are acceptable to you. As indicated in your recent letter, I understand that many of my responses do not provide the answers you were hoping for. You have also raised some new concerns. I will offer initial responses here and will look forward to visiting with you on June 9 for further discussion.

Most of the issues that you have raised are independent of the proposed administrative consolidation. Nevertheless, they are an important component of our ongoing dialogue. We are happy to comply with several of your requests. Specifically, (1) You have requested that county stakeholders be included in the strategic-planning process. We consider the participation of county stakeholders to be an essential component of the planning process. We are very pleased to make a commitment that they will be included and look forward to their participation. (2) We agree with your request that “*County reports shall be delivered to each county commission at the beginning of each calendar year, prior to the county budget process.*” (3) We agree to and strongly support your request to execute MOUs for joint appointments between CABNR, NAES, and UNCE faculty (or joint appointments with other academic programs). (4) We are continuing to work on a standard MOU to be executed with each individual county. You have made a constructive suggestion of including language regarding oversight and collaboration in county programs, goals and work plans of UNCE faculty, and UNCE programs related to workforce development. We will work to incorporate these considerations into the MOUs.

I appreciate that restoration of funding for UNCE is the overarching concern of NACO. UNCE funding, and in particular restoration of previous budget cuts, is however, independent of our proposal for administrative consolidation. Further, the NSHE priorities for the 2017 legislature have been established and cannot be modified at this point. We certainly respect NACOs plans to make restoration of UNCE funding a priority for the 2017 legislature. However, UNR will not be able to participate in discussions with the 2017 legislature on this issue. We remain committed to making UNCE funding an institutional priority in the 2019 legislature.

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Clark Administration, Room 110
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You have made several requests that would essentially have NACO managing UNCE structure and function. As outlined below, we cannot honor these requests.

- (1) You have asked that we make a commitment to limit joint UNCE positions to no more than one out of every ten new UNCE positions approved and that joint appointments be 51% UNCE. While we will seek input from counties and the UNCE advisory board on UNCE staffing, including joint appointments, UNR must retain authority to determine the most appropriate appointments to serve the needs of UNCE and the state. Thus, we can't agree to this request.
- (2) You have asked that UNCE be assigned its own fiscal officer, independent of CABNR or NAES. While we can't agree to this request, we restate our commitment to budgetary integrity and transparency.
- (3) You have asked that NACO be a "full and equal partner" in determining the qualifications for the UNCE Associate Director. Again, we are committed to a transparent and collegial working relationship with NACO, but NACO's role in all state-funded positions will be advisory. NACO will not have a final say nor have veto authority on UNCE positions. Please note, however, that we have made a change in the proposed title for this position as a result of our recent discussions with the UNR Faculty Senate. Specifically, the position will hold the title "Director of UNCE and Associate Dean for Engagement". The Director/Associate Dean will report directly to the Dean of CABNR. If/when our consolidation proposal is approved by the Board of Regents, we will immediately launch a national search for the Director/Associate Dean. We fully expect NACO to be an active partner in preparing for and executing the search for the new Director of UNCE and Associate Dean of Engagement. However, this is a position that is supported entirely by state funds and thus the hiring authority rests with UNR. The CABNR dean will make the final determination regarding the successful candidate.
- (4) You have asked that Extension Educators with master's degrees be eligible for tenure-track positions. As we have stated previously, this is contrary to University policy and is not a best practice among national land-grant universities. We cannot honor this request.
- (5) You have asked that NACO have "final input" into the liaison position to which we have committed. We are committed to identifying an individual for this position that is acceptable to both UNCE and NACO. However, this will be a state-funded UNCE position, and thus the final decision on any appointment will rest with UNR.

While I felt that it was important to clearly identify the NACO requests to which we could and could not agree, I want to emphasize that we are committed to forging and cultivating positive and constructive relationships with county partners. We strongly believe that the administrative consolidation that we have proposed is in the best interests of the State of Nevada, but our broad commitment to improved collaboration and the specific commitments that we have made through our dialogue with NACO are independent of the UNCE organizational structure.



University of Nevada, Reno

Kevin R. Carman
Executive Vice President & Provost

I believe that we are all anxious to get on with the important work of serving the citizens of Nevada. While the protracted discussion about the appropriate administrative structure for UNCE has consumed a great deal of time and energy by all concerned, it has also resulted in a very constructive dialogue. My request is that we move past the issue of administrative structure and turn our energies entirely toward building a stronger UNCE that serves the needs of the citizens of Nevada.

Sincerely,

Kevin R. Carman
Executive Vice President & Provost

Cc: Jeffrey Fontaine, Dagney Stapleton, Marc Johnson, John White, William Payne, Mark Walker

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April 11, 2016

Kevin R. Carman
Executive Vice President & Provost
Office of the Provost
Clark Administration, Room 110
University Nevada, Reno/0005
Reno, NV 89557-0005

Dear Provost Carman,

Thank you for your March 11, 2016 response to NACO's list of requested assurances. We appreciate both your and the Chancellor's work on this issue, as well as your willingness to take the time to address our concerns both in person and in writing. We look forward to continuing to improve the dialogue and engagement between the counties and the administration regarding UNCE. We have reviewed your letter and discussed it with our working group as well as with the NACO Board. On behalf of the NACO Board of Directors we have listed below in **bold** the responses from your letter that we agree serve as "assurances" for an improved relationship going forward between the University and the counties. We have also outlined some of our outstanding concerns, and, in *italics* below provided additional assurance language that we think addresses those concerns. Depending on how the list below looks to you, perhaps we can discuss these items further in a follow-up to our February 26th meeting. Thank you again for your willingness to work with us to rebuild the trust and positive relationship between the University and the counties. We know that this relationship is key to a healthy and well-functioning Cooperative Extension Program.

The following excerpts from your letter correspond numerically to the requested list of assurances contained in the NACO Position Paper that we distributed in November of 2015. We want to thank you for considering these issues and being willing, as we discussed in our February meeting, to include this language in the final document regarding consolidation that will go to Faculty Senate and then subsequently to the Board of Regents.

1. If the 2017 UNR legislative proposal is successful, we will commit to funding three FTE positions in UNCE. We plan to explicitly include UNCE funding in the 2019 legislative request. We will work on a strategic plan to improve services to



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Nevada's counties during the first organizational year of consolidation (July 1, 2016—June 30, 2017). This will provide a sound plan for re-investment in the Nevada Agricultural Experiment Station and University of Nevada Cooperative Extension.

Thank you for your commitment to these additional three positions. We understand your position and hopefully you understand ours. We have some additional thoughts on this that we have outlined below and also want to reiterate why we feel so strongly about the issue of UNCE funding:

- The University's State Appropriation line item is now 99% of what it was in 2008-09. As a result of this restored funding, in 2015-16, units such as the Colleges of Science and Engineering are at 122% and 129% of their 2008-09 state appropriations, respectively. Despite these increases, however, UNCE's state appropriations remain at a mere 48% of 2008-09, and UNCE is by far the least-restored unit on campus. Three positions (5.5 if we include the 2.5 positions that have been given to UNCE through the recent joint appointments) don't come close to restoring even a quarter of the 39 UNCE positions that were cut in 08-09. We ask you how this is equitable and how you plan to meaningfully support UNCE into the future without restoring funding and positions in 2017? The University has made substantial cuts to UNCE across the board, cuts that have not been restored; yet, despite severe budget constraints at the county level, counties continue to contribute generally the same amount to Cooperative Extension. Counties did not decrease or remove their dedicated funding for Cooperative Extension programming during the recession, and since then, in spite of the fact that county revenues are not recovering at the same pace as those of other public and private entities, county Cooperative Extension funding has for the most part been kept whole. Furthermore, for many years there have been counties that contribute revenue to UNCE even though they do not receive any state UNCE funding or have extension educators or programs of their own.
- Regarding the funding for the five new joint UNCE positions, we are aware that these were not funded with UNCE general fund dollars, and most certainly not with county dollars, and appreciate the additional clarification you provided in your letter. However, in your letter's reference to these new positions, an additional issue was raised, one that we believe is also very important. Your letter states: "In all cases, institutional funds (from student fees and state formula funding) were used to fund the positions." We understand that the University is relying more and more on student fees and that state formula funding has to be student oriented. What this implies to us is that these crucial state funding sources are less and less available for UNCE.



We would like to see documentation on formula funds and where they can be spent, because, if this is in fact true doesn't this increase the importance of the need for line item funding for UNCE? As the majority funder of UNCE, counties support the mission of engagement and mutually beneficially synergy between University research and the needs of the Nevadans in our communities. In consideration of this, however, if it is true that the current University funding formula potentially removes funding opportunities for UNCE, a commitment to an increase to the general fund line item appropriation for UNCE becomes even more important in the 2017 Legislative Session and beyond. Without seeking these funds and in light of the funding formulas, we ask, how does the Administration see a financial way forward for UNCE?

We believe you when you say that you do support the mission and work of UNCE. As mentioned above, and as you know, counties have continued to contribute generally the same amount to Cooperative Extension and have not made cuts; however, the cost-benefit ratio realized by this contribution has dwindled, and as you also know some counties are reconsidering whether their taxpayers' contributions would now be better spent elsewhere, with such a decline in the "match" by the University.

It is for all of these reasons that we stand firm in our request that NSHE include in its list of 2017 Legislative priorities an increase in the line-item budget of UNCE, and a restoration of *at least* 25% of the positions that were cut in 2008-09 by 2018. We have heard that the Administration has announced plans to hire a significant number of faculty in the coming biennium. We believe Dean Payne when he says that he knows he can "fight" for some of these positions and know that he will, however, we believe that as a priority you should commit now to assigning more of these to UNCE. Though other departments have been restored to 100% of their 2008-09 appropriations, we would be willing to offer a compromise from asking for a complete restoration immediately and instead ask that you include the following with the assurances that will be forwarded to Faculty Senate:

NSHE will include in its list of 2017 Legislative priorities a substantial increase in the line-item budget of UNCE. Although we are aware that counties would like this 2017 Legislative request to bring UNCE's state appropriations similar to what they were in 2008-09, in the interest of compromise, we will work with the counties to create a plan that would, somewhat equally, between the 2017 Legislative session and the 2019 Legislative session, restore UNCE's line-item funding to levels at least similar to 2008-09. Knowing that the outcome of the Legislative process is always uncertain we would further guarantee that UNCE, in the event a UNCE line item increase is not approved, will receive a portion of any funding approved for the purposes of restoring faculty positions, so that we can commit to



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restoring at least 25% of the UNCE positions cut in 2008-09 by January of 2018. And finally, a substantial portion of any restored positions should be located in the counties as opposed to on campus, and should be 100% UNCE appointments as opposed to joint appointments.

We would gladly offer to, and indeed expect to be, a full partner with NSHE in informing our Legislators of the benefit such a restoration in funding would be for Nevadans. Though we know that “Advanced Manufacturing” has been made a priority by the Governor we believe we can make a case to the Governor and our Legislators for the positive impact UNCE funding will have for Nevada, especially since both the Governor and Legislature saw the worth of increased UNCE funding during former sessions.

Additionally, given the difficulty in gaining new positions for UNCE it is important that as funding is restored, joint-positions with UNCE funds should be made sparingly, so that those funds can be dedicated to 100% UNCE appointments, as opposed to 49%. If these joint appointments are made, we appreciate the language in assurance numbers 11, 12, and 13 below which recognize the importance of strong MOUs, and would also like language added that states:

Joint positions made with UNCE funds must be limited to one new joint position for every ten new UNCE positions approved, unless the academic home for the appointment is within UNCE, and the appointment is 51% UNCE.

And finally, you mention in assurance #1 above, **“We will work on a strategic plan to improve services to Nevada’s counties during the first organizational year of consolidation (July 1, 2016—June 30, 2017).”** Thank you for your commitment to carrying out a strategic planning exercise regarding UNCE. As we have indicated to you in previous discussions we have been very disappointed that this consolidation proposal has not been put forth with any of the analysis or planning that would usually accompany such a change. This is most worrying for us in regards to the health of the program, as, organizationally, we wonder how any entity could be successful without a clear vision and articulation of priorities and goals. We know that we are not alone in our view that this lack of planning, *prior to consolidation*, is concerning for the health of UNCE and NAES as a whole and also regarding how programming will be carried out at the county level. Despite these strong concerns however, we do appreciate the you have made a commitment to undertake a planning process immediately after consolidation, in the event that consolidation is approved, and, in addition to the assurance above we would ask also for the following: 1) that counties are included in the planning process and; 2) that this process is extended to include county programming as well. The addition of the following language to your assurance will address this:



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This strategic planning process will include county stakeholders and will also be extended to include county programming so that any analysis and planning exercise that is undertaken for UNCE and NAES as a whole shall include each county Cooperative Extension program as well.

2. We will assure that all UNCE funds have been and will be used for their intended purpose as described under NRS 549.010 and NRF 549.050.

3. The UNCE Advisory Committee will resume, at a minimum, quarterly meetings, effective first quarter 2016. As was the case prior to 2013, it will have representatives/stakeholders from throughout the state with diverse interests in UNCE programs – rural, urban, various programs, various geographic areas, etc., selected by UNCE leadership (Dean, Director, Area Directors, Extension Educators, etc.), in consultation with the NACO Board of Directors. NACO shall have two appointments to this Board.

Thank you for agreeing to the language above – we look forward to working with you soon through this committee. In addition, and as we discussed, we agree that some other mechanism should be put in place for coordination amongst counties and the administration, where all counties can weigh in on specific issues (including MOUs, positions, and funding - many of the things we have been discussing) with the administration or the Deans. While the Advisory Board is important and we appreciate it being reinstated, two seats out of many, at quarterly meetings where issues are taken up at more of a 50,000-foot level, may not cover all of the gaps that currently exist in the relationship between the University and the counties. Ideas such as the NACO “liaison”, or the “partnership committee” mentioned by Dean Payne may be a good fit here. We agree with the language below regarding the liaison but would request the addition of the following sentence at the end: *Either the NACO Board of Directors, or the “partnership committee”, if something like that were to be established, would have final input on choosing the right individual for this position.*

In our meeting with NACO representatives on Feb. 26, 2016, we agreed that a UNCE liaison with NACO would be mutually beneficial. We agreed in principle to do this and discussed various ways that the liaison position could be structured. While we have not finalized a plan, we are committed to establishing a formal liaison with NACO and we look forward to defining a scope of work that articulates the expectations and annual outcomes for this position.



4. The University guarantees that UNCE funds will be distinct and clearly identifiable, that UNCE funds will be used only for UNCE programs, and that County funds will be used only for the support of county activities. We will provide annual financial reports for public review and comment. UNCE will retain its distinct identity. [UNCE] will maintain separate financial accounts and will provide transparent accounting of assets. More specifically, UNCE, CABNR, and NAES have distinct account codes within UNR, and these distinct codes will be maintained. Fiscal officers and area fiscal staff will prepare annual reports for each contributing county to clearly track how federal, state, county, and grant funds have been used.

Please add the following after the last sentence above:

County reports shall be delivered to each county commission at the beginning of each calendar year, prior to the county budget process.

We appreciate the commitment here to increase the financial transparency regarding how all UNCE dollars are spent, including giving annual reports to each county that track the use of all UNCE funding sources. NACO's original request was for UNCE to have its own "CFO/Financial Director". It was indicated in our discussion on February 26th, that that was not possible but that UNCE has a dedicated finance person, is that person a "fiscal officer" of some sort? With what seems to be a complex budget process that includes tracking and reporting regarding various funding sources we would like assurance that UNCE will continue to have its own dedicated finance person, independent of any such position in CABNR or NAES. Instead of the language from our original proposal, we would ask that you consider adding to the assurance above:

UNCE will continue to have its own Fiscal Officer, independent of any such position in CABNR or NAES.

5./6. When/If the proposed administrative consolidation is approved by the Board of Regents, a national search will be launched immediately to identify the Associate Director of UNCE. The successful incumbent will have significant experience with Cooperative Extension.

We recognize that having a Dean or Director of UNCE, who is not an Assistant Dean reporting to a "Super Dean" over Ag, NAES, and UNCE, is a non-negotiable point for the University. Though we still disagree and would prefer UNCE be led by its own director, we appreciate the commitment to do a national search for an Associate Dean, if consolidation is approved, and would request assurance that NACO will be a full and



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equal partner in determining the qualifications for this position, throughout the search process, as well as be considered a partner in deciding any future changes to this position. We would ask that you add the following to the assurance above:

NACO will be a full and equal partner in determining the qualifications for this position, and providing input throughout the search process. NACO will also be considered a partner in deciding any future changes to this position.

7./8./9. When Extension Educator positions are filled, [the University] will work closely with individual counties and in particular their commissioners to determine the Extension Educator credentials and qualifications that will best serve the county.

We are still concerned regarding the tenure issue - that tenure still be allowed in some cases for candidates with master's degrees, as we discussed in our February 26th meeting. UNCE faculty has traditionally been a mix of PhDs and faculty with other advanced degrees - this reflects the varied academic and professional backgrounds required to meet the complex needs of the Cooperative Extension mission. We would propose the assurance above include the following:

For Extension Educators, tenure track shall be an option for candidates who have a master's degree, depending on both the candidate's field of expertise and the needs of the county. University policy shall be that a waiver will not be required to obtain an "exception" to provide tenure track for Extension Educator positions where the candidate has a master's degree.

10. No county funds are used now nor will be used in the future to fund campus-based positions.

11. We support the idea of MOUs for joint positions and will take the suggestion further. We are currently executing MOUs for all faculty who hold joint appointments between UNCE and UNR academic programs. These MOUs will clearly describe expectations for faculty, including teaching, research, and outreach. The MOUs will include clear and specific descriptions of expectations for UNCE activities, including interactions with Extension Educators and county stakeholders. Role statements will be explicitly tied to state needs that can be addressed by UNR and UNCE programs. The MOUs will complement and guide the standard UNR "role statements" that are developed for each faculty member



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annually, and which describe the responsibilities against which faculty is evaluated. And they will specify terms under which the MOUs can be discontinued.

12. These MOUs [for joint appointments] (and role statements) should clearly identify faculty obligations for UNCE activities. We further support consulting with the Advisory Committee on these MOUs as part of a culture of transparency and accountability regarding the use of UNCE and University funds.

13. We support the suggestion of providing for an exit clause for the joint appointment if the goals for UNCE are not being met. The exit clause needs to be bilateral (i.e., either the academic unit or UNCE may petition to withdraw from the joint appointment if their goals are not being met).

We appreciate these assurances regarding requiring MOUs for joint positions. Thank you for including this language and for working on this concern with us. We would like to suggest one additional sentence be added to #11 to clarify that these policies regarding joint appointments apply within CABNR as well:

Were consolidation to be approved, MOUs would also be required for joint appointments between CABNR and NAES and UNCE faculty.

14. Our proposal specifies that UNCE, CABNR, and NAES will retain their identities while all being part of the administratively consolidated unit. We have further suggested in our proposal that UNCE retain its full representation on the Faculty Senate and University Promotion and Tenure Committee. The UNR Faculty Senate has authority to determine representation on the Senate and the Promotion and Tenure Committee.

Finally, as you know and have addressed in the letter we received from you on April 10th, one additional issue that has come to our attention is that, in years gone by, counties had Cooperative Agreements, or MOUs, with Cooperative Extension (UNCE or College of Agriculture, depending on the decade). These agreements were made at the county level and articulated both that counties had oversight and input into Cooperative Extension programming, as well as approval over the extension budget, for that county. As you did, we have researched this issue and found that Nevada State law suggests that each county should have such an agreement, and that each county should approve the budget to which their county funds make up such a significant component. We believe



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that these cooperative agreements may be another missing piece that could increase the communication and transparency between UNCE and the counties and appreciate your commitment to ensuring that new ones be created for each county. We saw the example that you sent, of an MOU used by Colorado State. We agree that this example could be a good starting point, however, from our perspective we also think that including language about oversight and collaboration in determining county programming is critical and that such language should include county input into the goals and work plans of county extension faculty as well as how Cooperative Extension programs are tied to the workforce.

Again, we thank you for working with us on these issues. As you know counties care very much about Cooperative Extension, both for the connection that it creates to the University and University research, as well as the benefit that it brings to our communities. We believe that the concerns we have raised are grounded in facts and history; however, if there is something else that we need to address or some way that we have been misinformed, we hope that you will correct us. Regarding the consolidation, though we are still concerned that this proposal is being brought forth without the data, metrics, or analytics that best practices would suggest should occur along with such a substantial administrative change, and while we would still urge that that planning process occur before going forward with consolidation, your willingness to spend time in negotiations and close conversations with us, we believe, has moved us towards progress. It is our goal to ensure that the mission of Cooperative Extension is carried out so that it creates a symbiotic relationship between the academic research and educational programming at the University and the people in Nevada's communities. We know that if we do this right, Cooperative Extension can continue to be a celebrated asset to the University, as well an entity that helps make a difference in the lives of everyday Nevadans in our state's rural and urban communities. To that end, we look forward to continuing this conversation with you.

Sincerely,

Clark County Commissioner Marilyn Kirkpatrick
Eureka County Commissioner J.J. Goicoechea,
Humboldt County Commissioner Jim French
Washoe County Commissioner Jeanne Herman

cc: NSHE Board of Regents, President Marc Johnson, Chancellor Daniel Klaich, Dean William Payne, Dean Mark Walker, Chair David Sanders, Ad Hoc Committee Chair Scott Mensing, Jeffrey Fontaine, Dagny Stapleton



The University at work in your community

1914 **100** 2014

UNIVERSITY OF NEVADA
COOPERATIVE EXTENSION



University of Nevada
Cooperative Extension

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2014 Centennial Edition Program Highlights

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Testing is Easy - Ask for a Test Kit Today!
UNIVERSITY OF NEVADA COOPERATIVE EXTENSION
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Living With Fire



MESSAGE FROM THE DEAN



This year, University of Nevada Cooperative Extension's offices throughout Nevada participated in the national recognition of the centennial of the founding of Cooperative Extension. They did so in the most appropriate way—by receiving proclamations at monthly county commission meetings. I was fortunate to be able to receive county proclamations on behalf of the University of Nevada, Reno and our fine and dedicated faculty and staff in Churchill, Clark, Douglas and Washoe Counties, and other members of our team received proclamations in Carson City, Elko, Eureka, Lincoln, Nye and White Pine Counties. Governor Brian Sandoval also issued a proclamation and participated in a video celebrating the centennial in Nevada. (See www.unce.unr.edu/about/centennial/.)

Our county offices are the University's important link to communities that need to resolve a wide range of issues. Our county-based staff work with community members to identify needs and define solutions. Our faculty members bring expertise to their positions, and they also rely on their abilities to make connections on behalf of the counties in which they live.

Our programs continue to address Nevada's major needs—coping with fire and drought, developing workable solutions to public land management issues, finding new opportunities for economic development, engaging youth and families in 4-H, providing training and education in health and nutrition, assisting agricultural producers and ranchers with challenges, and developing strong partnerships that benefit Nevada's communities. Our faculty received local, state, national and international recognition for their excellent work in 2013. You will see examples of these awards in this annual report.

As the next century of Nevada's Cooperative Extension begins, we continue to take an adaptable and flexible approach to connecting Nevadans with the resources needed to put the University to work in our communities.

This annual report sketches some of our best efforts from 2013. We hope that you recognize those that have been in place and valued for some time, such as Living With Fire. We also hope that you will see Nevada's emerging needs reflected in new initiatives, such as our research related to horticulture and our educational work in the emerging unmanned aerial vehicle industry.

Thanks for your continued support of University of Nevada Cooperative Extension. On behalf of the county-based staff, I invite you to visit our offices to talk about how we can continue to meet your needs.

Mark Walker, *Dean and Director*
walkerm@unce.unr.edu
775-784-7070

2014 PROGRAM HIGHLIGHTS

Dean and Director: **Mark Walker**
Editor: **Claudene Wharton**
Graphic design: **Chad Waters**
Writers: **Claudene Wharton,**
Marilyn Ming,
Tiffany Kozsan
Area Directors:
Northern **Frank Flavin**
Southern **Eric Killian**

Cover photos:

- A student participating in the Chefs for Kids nutrition education program at Lois Craig Elementary School in North Las Vegas enjoys a pluot.
- Alternative Crops and Forage Specialist Jay Davison discusses his research on growing hops in Fallon.
- Radon Program Director Susan Howe and Educator Jamie Roice-Gomes give a radon test kit to an attendee at the University's Field Day event in Reno.

“I'm pleased to join the Nevada family in recognizing the centennial of the founding of the Cooperative Extension. The founders of the Cooperative Extension back in 1914 would be amazed at what the Extension has become today.”

— Nevada Governor Brian Sandoval

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2013 ACCOMPLISHMENTS

557,909

Contacts with youth and adults throughout Nevada made by faculty and staff

1,364,154

Visitors to the www.unce.unr.edu website

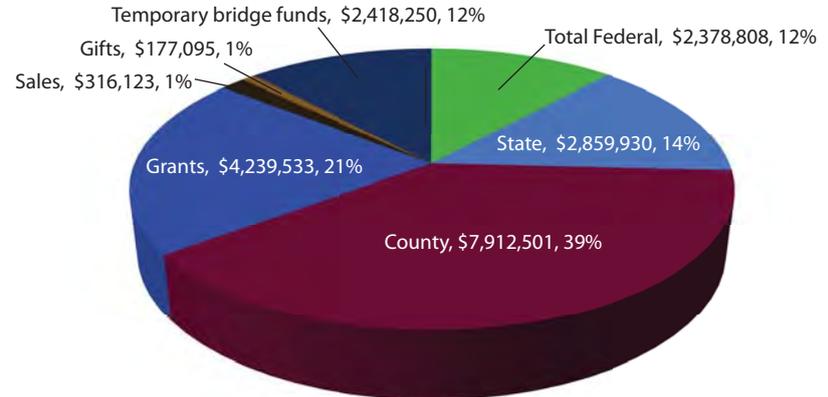
\$4,530,766

Funding procured by faculty and staff in grants

63

New educational publications, fact sheets and curricula published by faculty

FISCAL YEAR 2013 FUNDING



Bootstraps | Mentoring at-risk young adults; restoring sage-grouse habitat

Bootstraps was one of only 20 programs nationwide to receive the 2013 Partners in Conservation Award from the U.S. Department of the Interior for achievements in conservation of natural resources that include collaborative activity among a diverse range of entities. The program, initiated in 2005 by Lander County Extension Educator Rod Davis, gives at-risk young adults, ages 18 to 25, the opportunity to be involved in natural resource project work, such as restoring sage-grouse habitat. Participants receive practical classroom instruction and field experience 40 hours a week for six months, getting paid and gaining skills and decision-making abilities to return to school or enter the workforce.

From 2005-2013:

130

at-risk young adults were employed by Bootstraps, two-thirds of whom are Native American

12,000

acres were cleaned up by Bootstraps crews who removed pinyon-juniper trees, primarily in sage-grouse habitat

150

riparian micro-enclosures were constructed by Bootstraps crews to protect Aspen tree stands

34

targeted skills and abilities out of 37 assessed, in which 2013 participants showed statistically significant improvement

2,000

noxious-weed infested acres have been treated by Bootstraps crews

Program Partners: U.S. Bureau of Land Management Battle Mountain District; Duck Valley Sho-Pai Tribe; Eureka County; Lander County; National Mule Deer Foundation; U.S. Department of Agriculture and its Natural Resources and Conservation Service; Nevada Bighorns Unlimited; Nevada Department of Wildlife; University of Nevada, Reno College of Education



The 2014 Bootstraps crew on the eastern base of the Toiyabe Range in Lander County. Left to right: Jose Sarrano, Jordan Lee, Kevin Lee, Genevieve Mason, Clint Holley, Jacobly Simms, Lindsi Manning-Eben, Cameron Holley, Dal Cleveland, Jace Buchel, Konlee Decker, Marshall Wolf. Not shown: Brandon Hicks. Photo by Mike Stamm, director of Bootstraps field operations.

“It is hard work. It pays off when you see that your project is done — how much difference it makes to the environment, either the fencing or working with endangered species like sage-grouse — making a home for them.”

— Bootstraps participant

The Sage-Grouse Challenge: Planning and Research

Helping to preserve the species and its habitat,
while meeting the needs of landowners and managers

Cooperative Extension's collaborative Sage-Grouse Planning and Research efforts have been ongoing since the 1980s. Most recently, Douglas and Humboldt County Extension Educators Steve Lewis and Brad Schultz, and Natural Resources Specialist Kent McAdoo, have helped various groups formulate plans for enhancing the species' habitat that also meet the needs of ranchers, landowners and land managers. In addition, McAdoo conducted research 2009-2012 in collaboration with researchers from the Eastern Oregon Agricultural Research Center on using sagebrush transplants, rather than seeding, to restore sagebrush habitat for sage-grouse and other sagebrush-dependent species. The results were published in *Rangeland Ecology & Management* in 2013, with some findings below.



A sagebrush seedling is transplanted as part of research on sagebrush habitat restoration in Elko.

300%

increase in sagebrush density was achieved in some areas where competing herbaceous vegetation was controlled in the 2009-2012 research project near Elko

96%

of the plantings had live plants one to two years after planting

49

meetings were facilitated by Douglas County Extension Educator Steve Lewis since 2011 with five regional groups to help develop action plans for dealing with the sage-grouse issue

“Transplanting sagebrush can be very effective and doable. Transplants are ideal for small areas. For larger treatments like post-fire application, you can establish islands of transplanted sagebrush in key areas so the plants can provide a seed source over time and recolonize the site.”

– Natural Resources Specialist Kent McAdoo, on using transplants for sagebrush habitat restoration, vital to sage-grouse

Program Partners: Nevada Sagebrush Ecosystem Program; the Bi-State, Washoe Modoc Lassen, Lincoln County, White Pine County and Stewardship Alliance for Northeastern Elko working groups; Northeastern Nevada Stewardship Group; U.S. Fish and Wildlife Service; U.S. Forest Service; U.S. Bureau of Land Management; U.S. Department of Agriculture Natural Resources Conservation Service; Nevada Department of Transportation; California Fish and Game Commission; U.S. Geological Survey; Nevada Association of Conservation Districts; National Park Service; Southern Nevada Water Authority; University of Nevada, Reno College of Agriculture, Biotechnology and Natural Resources; Eastern Oregon Agricultural Research Center; ranchers and landowners; mining and power companies

Nevada Naturalist | Teaching natural resources stewardship; creating corps of volunteers

Horticulture Specialist M.L. Robinson started the Nevada Naturalist Program in 2008 to target adult learners interested in environmental issues affecting southern Nevada. Program graduates who complete at least 60 hours of classroom and field instruction have the opportunity to volunteer with partnering agencies. The short-term goal for this program is to continue to educate new participants about southern Nevada's natural resources. The intermediate goal is to have an educated corps of volunteers who will benefit the community. The long-term goal is to develop a self-sustaining group who will be able to work in, and teach others about, southern Nevada's natural resources.

From 2008-2013:

23

new projects were developed by Nevada Naturalists, including a two-day hands-on birding workshop at Henderson Bird Preserve; a "Nevada After Dark" astronomy workshop; and a two-day southern Nevada geology lecture and field trip to Red Rock Canyon

4,000+

volunteer hours were contributed by Nevada Naturalists at community events

89%

of those who enroll complete the program

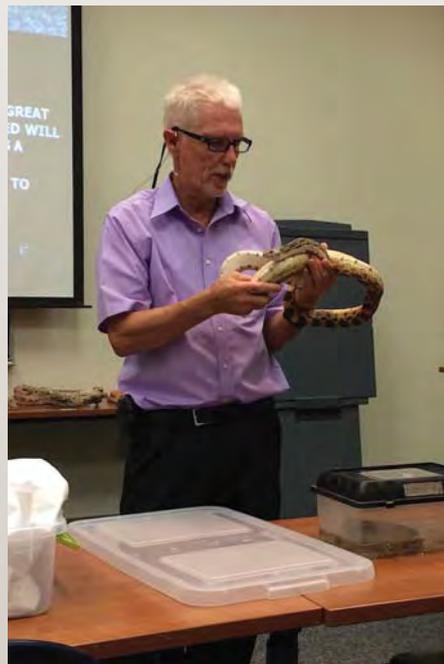
135

Nevada Naturalist participants graduated

Program Partners:
Henderson Bird Preserve, Red Rock Canyon National Conservation Area, Nevada State Museum at Springs Preserve, Clark County Wetlands Park, U.S. Fish and Wildlife Service, National Park Service, Nevada Department of Wildlife

“Overall this program is Outstanding! It has given me the education and resources that I needed to make a career change!”

– fall 2010 graduate of Nevada Naturalist



During a Nevada Naturalist session, Horticulture Specialist M.L. Robinson introduces “the great pretender” gopher snake, colored like the rattler, but harmless to humans.

Nevada Range Management School and Moroccan Range Management Training

Successful Nevada program now helping livestock producers and land managers across the globe

In 2005, Humboldt County Extension Educator Brad Schultz assisted Natural Resources Specialist Kent McAdoo with development of the Nevada Range Management School, a grazing management education program for livestock producers and land-management agencies. The workshop's goal is to improve vegetation and livestock management to sustain healthy rangelands for multiple uses. In 2011, the U.S. Forest Service International Program invited Schultz and Forest Service personnel to Morocco to develop a Moroccan Range Management Training for sheepherders in overgrazed areas of the Middle Atlas Mountains. Schultz is now assisting Forest Service staff with a similar program for Georgia in Eurasia.

50-71%

of Nevada program participants indicated they incorporated some or a great deal of what they learned into their work within six to 12 months after participating in the program 2006-2008

670

Nevada agency specialists and livestock owners have been educated by the program since 2005

15

Moroccan agency specialists and livestock owners have been educated by the program since 2011

1st

implementation of a managed grazing system in the Middle Atlas Mountains of Morocco was completed as a result of the program

17

attendees (representing 12 countries) were trained in range management by McAdoo and Schultz at the 2014 U.S. Forest Service International Program's International Rangeland Seminar



Trainees near Azrou, Morocco, learn the basics of how to monitor vegetation on rangelands.

“The [Moroccan] High Commission for Forests, Water, and Desertification and the community stakeholders in Azrou have developed a new grazing management plan that will use a deferred-rotation grazing system. This was developed based on the concepts learned in the Range School.”

– *Natasha Marwah, U.S. Forest Service International Program coordinator for the Middle East and North Africa*

Program Partners: U.S. Bureau of Land Management; U.S. Forest Service Humboldt-Toiyabe National Forest; U.S. Forest Service International Program; U.S. Department of Agriculture Natural Resources Conservation Service and National Institute of Food and Agriculture Sustainable Agriculture Research and Education Program; University of Nevada, Reno College of Agriculture, Biotechnology and Natural Resources; the Nevada ranching industry; Grazing Lands Conservation Initiative; Moroccan High Commission for Forests, Water and Desertification

Living With Fire | Teaching Nevadans how to live more safely in wildfire-prone areas

Living With Fire teaches homeowners how to live more safely with the wildfire threat. The collaborative program is directed by Natural Resources Specialist Ed Smith and has received numerous awards, including the “National Excellence in Extension Award” from the Association of Public and Land-grant Universities. A 2010 survey of homeowner participants indicated 91 percent had implemented some Living With Fire recommendations within the past year. Since 2010, the national strategy of “Fire Adapted Communities” has been incorporated into all program efforts, promoting the idea that a community should collectively strive to be able to survive a wildfire with little or no assistance from firefighters. See 2013 survey results below.

In 2013:

92.6%

of homeowners reached by the program and surveyed had taken steps on their properties to become more “Fire Adapted”

12,329

educational program materials were distributed

14,696

people were reached through program presentations, events or activities in Nevada and the Lake Tahoe Basin

19

states were using Living With Fire materials

21,941

online visits were made to view program materials

Program Partners:

U.S. Bureau of Land Management, Nevada Division of Forestry, Sierra Front Wildfire Cooperators, U.S. Forest Service; Lake Tahoe Regional Fire Chiefs Association, Nevada State Fire Marshal Division and more than 130 program collaborators statewide

“The Nevada Living With Fire Program is one of the most influential and successful programs of its kind nationwide. Montana has directly benefitted from this program, as have many others.”

– Matt Walcott, executive director,
Montana Fire Safe Council



Ed Smith, natural resources specialist and director of the Living With Fire Program, advises Reno homeowner Jenny Herz.

Mineral County Nonpoint Source Pollution Education Project

Educating young and old to help address water concerns in the Walker River Basin

The 2014-2016 Mineral County Nonpoint Source Pollution Education Project continues ongoing work the University and Cooperative Extension have been doing in the Walker River Basin for the past decade, researching and providing education about the area's declining water quality and quantity, which impact fisheries, agricultural producers and others who live in or visit the area. This current project educates residents of Mineral County and the Walker River Paiute Indian Reservation about nonpoint source pollution and how to minimize it in Walker Lake, the Walker River and the Weber Reservoir. Workdays are conducted at the lake and the reservoir to educate youth and adults through hands-on activities.

At the May, 2014 Walker Lake Workday:

96

Hawthorne Elementary School students participated in the May 18, 2014 Walker Lake Workday, rotating among 12 workstations with educational activities

2.8 million

metric tons of sediment erosion occurred in the Walker River, flowing into Walker Lake, 1995-2006

Program Partners: Nevada Division of Environmental Protection, Mineral County School District, Walker River Paiute Tribe



Hawthorne Elementary School students participate in an educational activity at the May 18, 2014 Walker Lake Workday, as part of an ongoing effort to help address water quality and quantity issues in the Walker River Basin.

“If you have pollutants on the soil, it directly impacts water sources, vegetation, wildlife and people. This program makes youth and adults think about what they put in our water sources and what they put on the ground, while providing additional education about Walker Lake environmental concerns.”

– Mineral County Commission Chair Jerrie C. Tipton

Water Conservation Economics

Training professionals who work with farmers in the West on how to determine economic feasibility of low-water-use alternative crops

The Water Conservation Economics Program grew out of a need to assess the economic potential of various low-water-use crops in Nevada. Carol Bishop, now Northeast Clark County Extension Educator, with colleagues Staci Emm and Kynda Curtis, created the “Evaluating Alternative Low-Water-Use Crops for the Great Basin” five-module curriculum. Since piloting it in 2010, they have presented it in multiple states to 217 agricultural professionals from the U.S. Department of Agriculture and other agencies. More than 2,250 copies have been distributed, and Bishop and her colleagues have used the curriculum to evaluate eight crops for the Walker River Basin. Bishop has now begun a five-year project using the curriculum in southern Nevada. See photo caption.



From 2013-2019, Northeast Clark County Extension Educator Carol Bishop and John Cushman, a College of Agriculture, Biotechnology and Natural Resources professor, will evaluate the economic potential of three varieties of prickly pear as a crop in southern Nevada. Bishop will focus on its economic potential for human consumption (such as jellies, etc.), while Cushman will be evaluating its potential for biofuel and feedstock.

“I am better prepared to answer questions from producers, and provide educational programs to help producers with water deficits.”

– agricultural professional who participated in the Water Conservation Economics course

Six months after taking the course:

82%

of agency participants have incorporated some of the course material into their operation or jobs

43%

of agency participants have introduced the course curriculum into their programs for producers

35%

of agency participants have assisted producers in implementing low-water-use crops on their land

39%

of agency participants have worked one-on-one with producers to evaluate the economic feasibility of low-water-use crops on their farms or ranches

Program Partners: U.S. Department of Agriculture National Institute of Food and Agriculture Western Sustainable Agriculture Research and Education Program; Nevada Agricultural Experiment Station; University of Nevada, Reno College of Agriculture, Biotechnology and Natural Resources

Herds & Harvest

Helping farmers and ranchers develop entrepreneurship, implement sustainable business strategies and improve profitability

The Herds & Harvest Program began with a three-year, \$672,000 grant in 2011 from the U.S. Department of Agriculture's National Institute of Food and Agriculture. Led by Mineral County Extension Educator Staci Emm, it provides Nevada's ranchers and farmers information on financial management, entrepreneurship and marketing, as well as on sustainable agricultural practices. The program has provided 128 trainings on 10 different topics, attended by 1,530 producers. It has also provided one-on-one assistance to producers and built a network among Nevada's farmers and ranchers, now 4,000 strong. The program is ongoing and is adding training in use of cover crops, soil and water management, viticulture and hops production.

From 2011-2013:

54%

of participants took actions toward long-term sustainability of their farms as a result of the program

51%

of participants changed marketing practices as a result of the program

57%

of participants reported the program directly improved profit in their businesses

52%

of participants changed production practices as a result of the program

75%

of participants reported the program benefited their operations

61%

of participants changed food safety practices as a result of the program

Program Partners: U.S. Department of Agriculture National Institute of Food and Agriculture, Rural Development, Farm Service Agency and Natural Resources Conservation Service; Nevada Department of Agriculture; University of Nevada, Reno College of Business, College of Agriculture, Biotechnology and Natural Resources, and Agricultural Experiment Station

“As a result of our contacts with Carol, we became connected to the agricultural community, exchanging help, ideas and resources. Our business grew due to these connections and prompted changes in our methods.”

– agricultural producer, speaking of help from Northeast Clark County Extension Educator Carol Bishop



The Herds & Harvest Program provides information on topics useful to Nevada's ranchers, as well as its farmers, such as workshops on processing and selling locally grown meat, food safety and business planning.

People of the Land | Sustaining American Indian agriculture in the West

Mineral County Extension Educator Staci Emm and Interdisciplinary Outreach Liaison Loretta Singletary developed the People of the Land curriculum in 2009 to train U.S. Department of Agricultural and natural resource professionals in Idaho, Nevada, Oregon and Washington in more effective ways to assist American Indian producers in strengthening sustainable agriculture and natural resource management on reservations. The program won the 2011 National Extension Diversity Award and the 2010 Association of Natural Resources Extension Professionals Gold Award, and is expanding to include Arizona's Hopi Reservation and the Navajo Nation in Arizona, New Mexico, Colorado and Utah. The curriculum has been adapted for use in schools, and is in its third printing.

From 2011-2013:

56%

of Farm Service Agency personnel planned to implement additional outreach actions to provide programs to American Indians within six months of the training

3,995

copies of printed educational materials were distributed in response to public demand

90

tribal members were trained under People of the Land

250+

certified agricultural and natural resource professionals were trained under People of the Land

Program Partners: U.S. Department of Agriculture National Institute of Food and Agriculture Western Sustainable Agriculture Research and Education Program, U.S. Department of the Interior Bureau of Indian Affairs, U.S. Bureau of Land Management, American Indian tribes across the West



Mineral County Extension Educator Staci Emm (left) and Interdisciplinary Outreach Liaison Loretta Singletary have used their People of the Land curriculum to help strengthen sustainable agriculture and natural resource management on reservations throughout the West, including the Paiute's Pyramid Lake Indian Reservation in northern Nevada, shown here.

“The work Loretta Singletary and Staci Emm have done with People of the Land has shown incredible initiative and has been a great public service to address a long-term need for people working in Indian country.”

– Rob Hedberg, national director of the Sustainable Agriculture Research and Education Program, Washington, D.C.

Alternative Crops

After teff success, low-water-use summer annual forage grasses and hops now showing promise in Nevada

Nevada farmers go to Alternative Crops and Forage Specialist Jay Davison when looking to grow something new. The teff trials he began 12 years ago have resulted in Nevada growing about 50 percent of the teff sold in the country. With Nevada's drought and expanding dairy industry, Davison is now conducting trials of low-water-use summer annual forage grasses. The hops vines the Workman family and he planted in 2012 at Workman Farms in Fallon are 20 feet high, and the 2013 harvest was high quality. Davison is now working with the High Desert Hops Project at the University's Main Station Farm, a collaborative research project evaluating 10 hops varieties. Cooperative Extension Horticulture Specialist M.L. Robinson is also doing hops trials in Clark County.

From 2011-2013:

13

varieties of summer annual forage grasses have been grown at Newlands Experiment Station in Fallon and at the University's Main Station Farm

1,200+

acres of teff were planted in Nevada

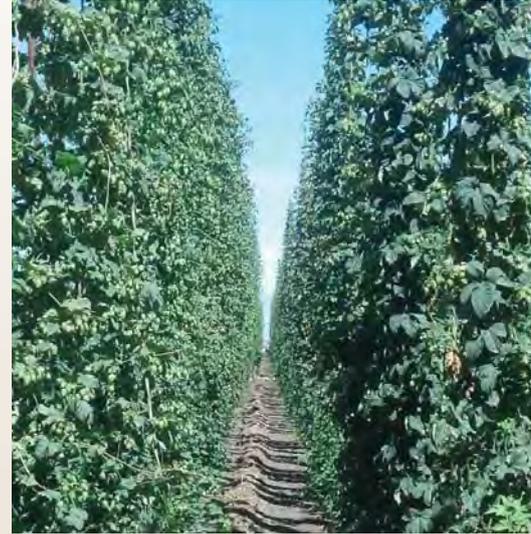
1,000

hops plants were planted at the University's Main Station Farm in Reno, as part of the High Desert Hops Project

600

hops plants were planted on one acre of Workman Farms in Fallon

Program Partners (current projects): Fallon hops research – Workman Farms, High Desert Hops Project – Nevada Department of Agriculture; Urban Roots; University of Nevada, Reno High Desert Farm Initiative and College of Agriculture, Biotechnology and Natural Resources. Summer annual forage grasses research – University of Nevada, Reno College of Agriculture, Biotechnology and Natural Resources



The hop vines Davison planted in 2012 on Workman Farms in Fallon are thriving. Workman Farms now plans to expand their hops acreage from one acre to perhaps 20 acres.

“All four of them are growing like a son of a gun. Of all the things I've ever grown, these are probably the most forgiving. They're very well adapted for low-water-use conditions.”

– Cooperative Extension Alternative Crops and Forage Specialist Jay Davison, commenting on the four varieties of hops planted at Workman Farms in Fallon

Master Gardeners

Providing free, research-based horticulture information to thousands of Nevadans each year

Master Gardeners educate Nevadans about growing plants in Nevada's challenging climate and soils, as well as about practicing environmental stewardship. Nevadans are thirsty for answers to questions regarding home landscapes, vegetable gardens, fruit trees and more, and Master Gardeners provide research-based information to answer thousands of these questions each year, at Cooperative Extension offices, as well as at community events and farmers markets. After their intensive 50- to 80-hour classroom and hands-on training, Master Gardeners volunteer at least 50 hours per year, helping to establish demonstration, community and school gardens; teaching schoolchildren, adults and seniors the joys and benefits of gardening and healthy eating; and putting on workshops across the state.

In 2013:

62,387

people were provided information or assistance face-to-face by Nevada Master Gardeners

13,591

calls and emails were answered by Nevada Master Gardeners

46,580

hours were volunteered by all Nevada Master Gardeners

1,567

hours were volunteered by a single Nevada Master Gardener, Don Fabbi

540

active Nevada Master Gardeners volunteered

Program Partners: Nevada Department of Agriculture; Nevada counties, parks, schools, community centers, nurseries, farmers markets and others too numerous to list



Wendy Hanson Mazet, Master Gardener coordinator in northern Nevada, demonstrates how to plant roses.

“I planted seeds and taught basic botany to elementary school students. Among my rewarding experiences was the low-reading-skill student who correctly answered the definition of a difficult word on a standardized test. When asked how he knew it, he responded, ‘I learned it from the Plant Lady!’ He meant me.”

– Barbara Weinberg, longtime Master Gardener volunteer

Grow Your Own, Nevada!

Teaching Nevadans about growing their own food for more healthy, sustainable living

Grow Your Own, Nevada! provides horticultural information to homeowners who want to become successful backyard food producers and get on a path to more sustainable, local, healthy living. The program includes eight two-hour classes, delivered weekly in the fall and spring at 12 or more locations throughout the state. Horticulture Specialist Heidi Kratsch established the program in fall 2011 to help people discover the secrets to gardening in Nevada's high-desert climate. Grow Your Own, Nevada! teaches horticultural principles that apply to growing various plants, tried-and-true methods from experienced gardeners, and new and alternative methods developed for growing on a small scale.

From 2011-2013:

40%

gain in program-related knowledge was shown by participants

30,958

online visits for information from the program were made

2

people reported they started businesses as local food producers because of the program

3,732

people were trained through the program

Program Partners: Nevada Department of Agriculture, Local Food Network of Truckee Meadows

“Thank you so much for these presentations. Because we live at altitude and have a shorter growing season, your information is invaluable... I learned so much info that I can't wait for early spring.”

– *Grow Your Own, Nevada! participant*



The Grow Your Own, Nevada! Program kicked off its 2013 series of workshops with a presentation on how to bring beneficial insects, such as bees, into your garden with native plants.

Gardening in Small Places | Educating home gardeners on good horticulture practices

In Nevada, gardening can be very challenging. In 2009, Social Horticulture Specialist Angela O'Callaghan created Gardening in Small Places in response to public demand for good horticulture information without commitment to long-term programs. The goal was to improve horticulture practices among southern Nevada residents wanting to reduce their carbon footprint and eat more locally grown produce. Hands-on workshops are offered once a month and cover topics such as pruning, growing, troubleshooting, composting, irrigation, pest control, growing vegetables, container gardening and more. Participants may take as many classes as they wish.



Gardening in Small Places participants are encouraged to try their pruning techniques on the fruit trees in the Cooperative Extension Outdoor Education Center demonstration garden.

“The composting workshop was very interesting. I love going home with worms.”

– Gardening in Small Places participant

From 2009-2013:

800

people participated in workshops

9

topics were added (went from two to 11)

35

workshops were held

The Greenhouse Project | Increasing agricultural and horticultural arts and sciences in Carson City

The Greenhouse Project, a nonprofit organization, was conceptualized in 2008 among Cooperative Extension and other partners to sustainably operate a community-based greenhouse and garden, and increase agricultural and horticultural arts and sciences in Carson City. It includes a greenhouse, hoop house and small orchard; 65 raised beds; and permaculture and compost areas. The Greenhouse Project is run primarily by AmeriCorps interns, volunteers and Carson High School students, including those with special needs. It provides a place for hands-on training, emphasizing environmental stewardship, the importance of outdoor activity, civic engagement and academic achievement. Produce is mostly donated to Carson City food banks, low-income families and Carson High School's culinary program.



Three students at Carson High School (left) plant seeds with a Carson High School staff member (right) as part of The Greenhouse Project.

“Greenhouse management, a previously foreign field for me, is now open to me, as a field of future career choices, and as an area of personal development... My general knowledge of agribusiness and the practices used by Nevada farmers has become larger than I ever anticipated.”

– Carson High School senior who participated in The Greenhouse Project

At The Greenhouse Project in 2013:

4,400

pounds of produce were donated to food banks in Carson City

375+

hours were worked by about 30 special needs students

1,500

volunteer hours were performed by nonstudents

802

students visited, including students from Carson High School, Bordewich Bray and Fremont Elementary Schools, Eagle Valley and Carson Middle Schools, and Carson Montessori School

3,300

volunteer hours were performed by six AmeriCorps interns

3,011

student hours were put in including classes, tours and juvenile probation work

Program Partners:
Nevada Department of Agriculture, Carson City Cultural Commission, Future Farmers of America, The Greenhouse Project 501 (c) (3) corporation, Carson City School District, Nevada Division of State Parks, numerous businesses and volunteers

University of Nevada Cooperative Extension Celebrates Centennial With its Partners

A partnership of Nevada counties; the University of Nevada, Reno; and the U.S. Department of Agriculture



Since the Smith-Lever Act established the Cooperative Extension system 100 years ago to provide educational programs “to diffuse useful and practical information” via land-grant institutions, University of Nevada Cooperative Extension has been a part of Nevada life, presenting research-based knowledge and programs to address critical community needs.

If you’ve ever participated in a 4-H activity or received helpful information from a Master Gardener or a Living With Fire publication, you’ve been touched by one of University of Nevada Cooperative Extension’s more than 100 educational programs. This county-state-federal partnership provides practical education to people, businesses and communities in all 17 Nevada counties. And, the partnerships go well beyond government entities, with many other agencies, businesses and volunteers contributing to make the achievements of University of Nevada Cooperative Extension possible.

Nevada Governor Brian Sandoval asked Nevadans to join him in recognizing the achievements of this special partnership this year, sharing his experiences in 4-H as a youth in a special taped message celebrating the Cooperative Extension centennial. He also proclaimed May 8, 2014, University of Nevada Cooperative

Extension Day in Nevada, and several county commissions across the state issued similar proclamations. Watch the short centennial video presentation, including the Governor’s message, at www.unce.unr.edu/about/centennial/.

Better yet, stop by your local Cooperative Extension office, say hello and find out more about what University of Nevada Cooperative Extension is doing in your community. The Cooperative Extension family appreciates the opportunity to partner with our neighbors across the state for the last 100 years to contribute to Nevadans’ quality of life in real and meaningful ways. As Gov. Sandoval concluded in his taped message, “Here’s to 100 more.”



“The 4-H Program taught me responsibility, leadership and gave me lifelong skills. In fact, it was my participation in 4-H that led me to buy my very first car – a Volkswagen bug. My brother and I spent every morning feeding and tending to our lambs.” – Nevada Governor Brian Sandoval

University of Nevada Cooperative Extension

The University at work in your community

Nationally recognized for excellence

In 2013, Nevada's Bootstraps Program, led by Lander County Extension Educator Rod Davis, was one of only 20 programs nationwide to receive the Partners in Conservation Award from the U.S. Department of the Interior for achievements in conservation of natural resources that include collaborative activity. (See Page 3.) Humboldt County Extension Educator Brad Schultz also received the University's Global Engagement Award for his Range Management Training Program in Morocco. (See Page 6.) Maternal Child Health Nutrition Specialist Madeleine Sigman-Grant was also presented a Nevada Women's Fund 2014 Nevada Women of Achievement Award. (See Page 26 and Page 30.)

University of Nevada Cooperative Extension is also the only Extension to have garnered the National Excellence in Extension Award twice since the award's inception in 2006. The Association of Public Land-grant Universities presented the 2008 award to Nevada Youth Development Specialist Marilyn Smith, whose program efforts include Project MAGIC. (See Page 22.) The 2006 award went to Nevada Natural Resources Specialist Ed Smith, who created the internationally known Living With Fire Program. (See Page 7.) Nevada's Extension also garnered the Association's only other national Extension award, its National Extension Diversity Award, in 2011, for its People of the Land Program. (See Page 12.)

“That land-grant institution, in fact, that most fully surrenders itself to the state and nation in a spirit of service, that institution shall truly be greatest among us.”

– W.J. Kerr, Former President of Oregon State Agricultural College, 1931, in “The Spirit of the Land-Grant Institutions” address



Morrill Hall on University of Nevada, Reno's historic Quad. In Nevada, the University of Nevada, Reno is the land-grant institution, and as such, it has accepted the duty and the privilege of supporting the mission of Cooperative Extension throughout the state.

4-H Youth Development

Educating today's youth in science, citizenship and healthy living; developing tomorrow's leaders

4-H activities teach youth ages 5 to 19 leadership, citizenship and life skills, as well as STEM (Science, Technology, Engineering and Math). Fueled by university-backed curriculum and led by trained staff and dedicated volunteers, 4-H programs engage youth in experiential, or “hands-on,” learning. From its roots in animal and homemaking clubs in rural communities more than 100 years ago, Nevada's 4-H now includes an array of programs in rural and urban areas for youth with various interests and needs, including project clubs in photography, performing arts, public speaking, wildlife and rocketry, to name a few. There are also general community clubs, afterschool programs, school enrichment programs enhancing learning in the classroom, programs for military families and summer camps.

2x

girls in 4-H are 2 times more likely to participate in science, engineering or computer technology programs as their peers

2x

youth in 4-H are 2 times more likely to plan to go to college than their peers

2.3x

youth in 4-H are 2.3 times more likely to exercise and be physically active than their peers

3.4x

youth in 4-H are 3.4 times more likely to actively contribute to their communities than their peers

Program Partners: Nevada schools, counties, fair organizations, military organizations, housing authorities, nonprofit organizations, governmental agencies and businesses too numerous to list



Alan Zhang, age 11, enjoys a tie-dyeing activity at Nevada 4-H Camp at Lake Tahoe. In 2013, 302 youth and 109 teen counselors and adult chaperones participated in the camp, which emphasizes character building, communication, problem-solving, decision-making, managing resources, working with others and environmental stewardship.

“It's fantastic being a teen counselor at the 4-H camp. It's a lot of fun. Watching the kids learn is the best experience. You know they leave knowing so much more than when they came.”

– John Singh, teen counselor at the Nevada 4-H Camp

ALITAS: Alliance of Latinas in Teen Action and Solidarity

Helping Latina teen girls understand the
importance of higher education to their future

Leticia Servin began the ALITAS Program in 2007 in Carson City to teach middle school Latina girls communication skills, the importance of education and how to prepare for college. Since that time, 232 students have participated, meeting weekly and engaging in various activities to help them explore their heritage and self-image, build communication and teamwork skills, foster good understanding and relationships with their family members, set educational goals and identify positive role models. They also volunteer at community events, visit professional Latinas in their workplaces and hear from Latina community leaders. In addition, the teens visit the University of Nevada, Reno and Western Nevada College campuses.

“I feel that the ALITAS Program has helped me a lot to better understand how I am and what I want to do for my future.”

– ALITAS participant

From 2005-2013:

97%

of participants responding to a survey (survey respondents) felt more prepared to go to college

92%

of survey respondents improved their participation in school activities

82%

of survey respondents improved their ability to communicate with parents and teachers

99%

of survey respondents felt more positive about themselves

80%

of survey respondents said the program improved their school performance

100%

of survey respondents either finished high school or were still in high school

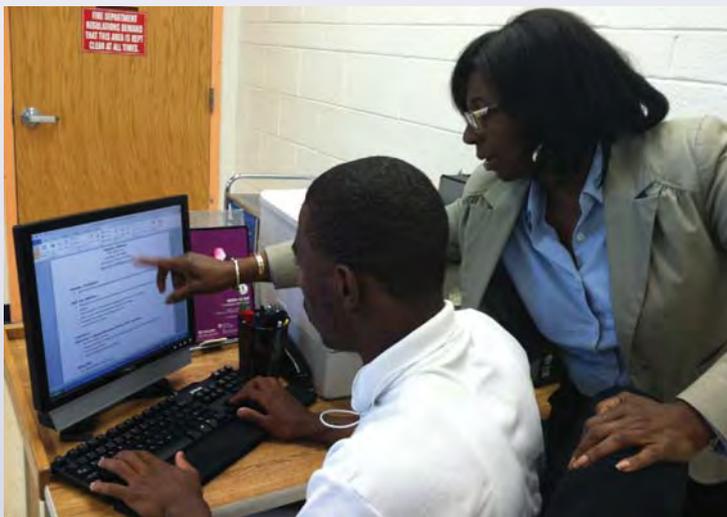
Program Partners: Carson City School District; Carson Middle School; Eagle Valley Middle School; Nevada State Museum in Carson City; Boys and Girls Clubs of Western Nevada; Western Nevada College; Nevada Legislature; various community, political and educational groups and events



ALITAS Instructor Leticia Servin works with Latina students at Carson and Eagle Valley Middle Schools throughout the year to encourage student success and help them map a path to college.

Career Edge: Teens Taking Charge of Their Future

“Soft” skills, including leadership, teamwork, critical thinking, problem-solving and decision-making, are considered most deficient in recent high school graduates. In 2008, Youth Development Specialist Eric Killian developed Career Edge, a workforce-readiness program, to help meet the Family and Consumer Science Standards set for Nevada high school students, increasing teens’ soft skills, their ability to acquire their first jobs and their ability to work toward long-term career goals. The program is delivered twice a week for six weeks at two Las Vegas high schools, where teens work on skills such as completing job applications, building resumes, interviewing for jobs and creating a positive work ethic.



Career Edge Instructor Willie Daugherty (right) works with Demarey Shumate, a sophomore at Desert Pines High School in Las Vegas.

Teaching teens skills to prepare them for entering the workforce

From 2008-2013:

90%

of youth participants showed significant improvement in their ability to make good decisions, solve problems, demonstrate leadership skills, fill out job applications, dress appropriately for interviews, and understand how school has a direct effect on their future career choices and success

4,250

youth participated in the program

50%

of youth obtained their first “real” paying job after participating in the program

Program Partners: Clark County School District’s Desert Pines and Spring Valley High Schools

“I learned how to properly interview for a job and how to dress.”

– Career Edge participant

Project MAGIC | Collaborating to help juvenile offenders make better decisions, choose brighter path

Since 1995, Project MAGIC has helped more than 4,000 juvenile offenders across the state become productive members of society. Offenders ages 12 to 18 attend three sessions per week over two months (or 31 hours), and their parents attend 10 hours of programming to improve in: communicating; building positive relationships; decision-making/self-responsibility; managing conflict; team-building/cooperation; goal setting; and avoiding alcohol, tobacco and drugs. The participants' measured improvement has led to: 17 states adopting Project MAGIC; it being listed on the National Registry of Evidence-based Programs and Practices; and it receiving several awards, including Program Director and STEM Specialist Marilyn Smith receiving the "National Excellence in Extension Award" from the Association of Public and Land-grant Universities.

“After MAGIC class last week when we talked about being responsible, I heard what you said about giving up on yourself. Usually I write, like, three words on my writing proficiency test and then quit. I decided that I was not going to give up on myself any more. This time, I really tried and I worked on that test for the whole 3.5 hours.”

– Project MAGIC graduate



The 116-page Project MAGIC workbook was authored by STEM (Science, Technology, Engineering and Math) Specialist and Project MAGIC Program Director Marilyn Smith, and Youth Development Specialist William P. Evans.

In 2013:

16

targeted program goals and life skills in which youth participants showed statistically significant improvement, including school grades, self-confidence, thinking before acting, planning for the future and 12 more important life skills

127

youth participated, plus their parents

Program Partners:

Frontier Community Coalition; PACE Coalition (Partners Allied for Community Excellence); NyE Communities Coalition; 6th Judicial Youth and Family Services; Elko Juvenile Probation; Nye Juvenile Probation; Nevada Youth Training Center; School Districts of Elko County, Nye County, Humboldt County, Pershing County and Lander County

Child Development Associate Credential

Pre-kindergarten educators receiving instruction and training to gain valuable credential and skills

The Child Development Associate Credential™ is the most recognized credential in early childhood education. It is based on a set of competency standards that meet Nevada's Pre-Kindergarten Standards and guide professionals working toward becoming qualified teachers of young children. In Nevada, this credential is a requirement for employment at agencies such as Early Head Start and Head Start. Cooperative Extension does not issue the credential, but its program, directed by Early Childhood Education Specialist Teresa Byington, helps prepare individuals for approval from the National Council. The training involves 480 work hours and 120 hours of educational instruction, plus family surveys, an exam and a portfolio.



Class of 2013 CDA candidates. Front row – Lisa Harris, Cheryl Rich, Patricia Miller, Guadalupe Vallin, Blanca Guzman, Paula Rayner; second row – Russel Horrocks, Linda Rothberg, Mark Genesi, Leilani Gordon, Norma Luisi; third row – Lillian Principato, Patricia Fonseca, Pam Grey; fourth row – Estella Ramirez, Maria Garcia, Erandi Garcia.

103

program participants were awarded the Child Development Associate Credential from 2010 to 2013

132

participants are completing the required 120 hours of instruction

29

participants are in the process of completing Credential requirements

Program Partners: Clark County School District; Acelero Head Start; Sunrise Children's Foundation Early Head Start

“Since participation in the CDA classes, I see a confidence, more understanding of child development and an increase in social and verbal interaction. I have observed a change of knowledge.”

– a pre-kindergarten lead teacher, commenting on a colleague/program participant

All 4 Kids: Healthy, Happy, Active, Fit

Combining disciplines to teach the importance of nutrition, physical activity and self-awareness to preschoolers

All 4 Kids®, recipient of the 2012 National Institute of Food and Agriculture Partnership Award for Mission Integration, Research, Education and Extension, takes a multidisciplinary approach to childhood obesity prevention. In 2008, Exercise Physiologist Anne Lindsay, Maternal Child Health Nutrition Specialist Madeleine Sigman-Grant and Early Childhood Education Specialist Teresa Byington teamed up to develop a 24-lesson curriculum for preschoolers incorporating learning activities, music and dance to teach nutrition, physical activity and self-acceptance. The program includes discussions with parents and staff to enhance their understanding of these issues, training for preschool staff, and take-home activities to reinforce concepts. Preschoolers have shown statistically significant improvement in movement skills after program participation.

“The All 4 Kids Program has even helped me make healthy eating choices. It’s great that the children and their families have this information.”

– All 4 Kids teacher participant

From 2005-2013:

1,193

preschool children and parents participated in All 4 Kids in Clark County with 84 percent being from underrepresented groups

38,700

people viewed the award-winning CD/DVD on YouTube

36

All 4 Kids family events were held in Clark County, including two communitywide Healthy Kids Festivals

10,000

copies of the award-winning CD/DVD were distributed

3

states have replicated the program (New Jersey, Oklahoma and Connecticut)

Program Partners: U.S. Department of Agriculture Supplemental Nutrition Assistance Program – Education, Acelero Learning Clark County, Clark County School District, Family to Family Connection, Clark County Parks and Recreation



All 4 Kids Program Instructor Nichol Tullis teaches “Ven Conmigo,” a salsa dance, at Paradise Recreation Center in Las Vegas.

Nevada Radon Education Program

Educating Nevadans about the health risks of radon; providing test kits and preventative resources

The Nevada Radon Education Program educates Nevadans about the health risks of radon, the leading cause of lung cancer among nonsmokers in the U.S. Radon is a naturally occurring, odorless, tasteless and colorless radioactive gas that can accumulate in buildings and homes. Testing is the only way to determine if a home has a problem. The only way citizens learn about the risk is through education. Susan Howe leads the program's efforts to help educate Nevadans by providing low-cost test kits, information, technical assistance, programs, presentations and literature.

“I was privileged to collaborate with the Nevada Radon Education Program. The specific resources and knowledge I gained from the program were invaluable during my recent home purchase and in testing my home's mitigation system.”

– Shanna Keele, former Reno resident



Susan Howe, Radon Education director (left); and Jamie Roice-Gomes, Radon Education coordinator, give a radon test kit to an attendee at a community event.

From July 2007-2013:

14,972

homes were tested because of the program's efforts to raise awareness

30,628

short-term test kits were distributed by the program

145

new Nevada homes were built radon-resistant

1 in 4

Nevada homes that were tested had potentially hazardous radon levels

613

homes were mitigated to reduce radon levels

Program Partners: U.S. Environmental Protection Agency, Nevada Division of Public and Behavioral Health, American Lung Association in Nevada, Incline Village Recreation Center, Nevada Tahoe Conservation District, Tahoe Regional Planning Agency, Washoe County Library System, Clark County Library District, Grassroots Books

Chefs for Kids

Collaborative program provides nutrition education at an early age to combat obesity and chronic diseases

Chefs for Kids is a nutrition education program for children in Washoe and Clark County schools with 50 percent of students who are low-income. It is partially supported by the American Culinary Federation Chefs Las Vegas and directed by Maternal Child Health Nutrition Specialist Madeleine Sigman-Grant. It includes a six-part first-grade curriculum and a 38-lesson second-grade curriculum. First-grade lessons introduce concepts of energy and activity, food origins, food groups and healthy snacking. Weekly second-grade lessons focus on the origin and use of food, the need for food, and how physical activity lowers the risk of developing chronic diseases, including obesity.

In 2013:

8.07

was the average score of first-grade students on the test after program participation, compared to an average score of 6.1 on the test prior to program participation (on a scale of 1 to 10)

61%

of student participants improved snack choices over the school year

94

was the average score of participants on a food classification evaluation (out of 100)

84%

of students assessed for hand-washing skill after program participation responded with no errors

91.5%

of students assessed after program participation were able to list at least two activities that would be considered part of an “active lifestyle”

Program Partners: Clark County and Washoe County School Districts, Chefs for Kids Foundation, American Culinary Federation Chefs Las Vegas, U.S. Department of Agriculture Supplemental Nutrition Assistance Program – Education, Share Our Strength, Cambridge Recreation Center, MGM Resorts International

“My sister used to just eat junk, but then I learned about healthy food and how to make a good snack. Now I can help her to be healthy cause I can make healthy snacks for her to eat.”

– Johanna, second-grade student, at C.P. Squires Elementary School, who participated in Chefs for Kids



A student participating in Chefs for Kids at Lois Craig Elementary School in North Las Vegas enjoys a pluot.

Little Books & Little Cooks | Nutrition education and literacy go hand-in-hand for preschoolers

The first six years of life have a significant effect on children's development, and parents play the most important role during this time. Parenting and Child Development Specialist YaeBin Kim developed the Little Books & Little Cooks Program for preschool children and their parents to address the priorities of school readiness, healthy eating, parent-child interaction and literacy. In the seven-week program, each week children and parents at 30 southern Nevada schools, libraries and community centers learn about healthy eating and nutrition, gain positive parent-child interaction skills, and practice school readiness skills by reading children's books about healthy eating and by cooking and eating together.

In 2013:

88%

of parents consumed more fruits and vegetables after participation

282

families (295 adults and 358 children) participated, 65 percent of whom were Hispanic

81%

of children consumed more fruits and vegetables after participation

75%

of parents demonstrated more positive parent-child interaction during cooking after participation

Program Partners:

U.S. Department of Agriculture Supplemental Nutrition Assistance Program – Education; Clark County School District; Acelero Head Start Centers; North Las Vegas, Las Vegas and Henderson Libraries; University Medical Center Family Resource Center; various community recreation centers



Little Books & Little Cooks Instructor Lisa Houser explains different fruits and vegetables at the Dean Petersen Elementary School Parent Resource Center in Las Vegas.

“I really love this program; I definitely wish to have this program next year so I can bring my other son. Everything is really good. Kids and parents learned together.”

– Little Books & Little Cooks parent participant

Small Steps 4 Big Changes | Providing nutrition education to low-income youth and their families

Since 2006, Small Steps 4 Big Changes has provided nutrition education to low-income youth and their families in Reno Housing Authority public housing complexes, including Mineral Manor, Myra Birch, Essex, Stead Manor and Hawkview. The program, directed by 4-H Youth Development Coordinator Sarah Chvilicek, offers a series of 10 nutrition lessons twice a year, focusing on thriving within a limited budget and increasing fruit and vegetable intake. The lessons incorporate recipe preparation, food sampling and physical activity, with additional nutrition education for parents and caregivers. The program fosters behavior changes identified by the Centers for Disease Control as being linked to obesity prevention.

In 2013:

92%

of youth participants were able to identify and correctly name all five food groups on the MyPlate model created by the U.S. Department of Agriculture

80+

people participated in the program

91%

of youth participants were doing at least 30 minutes of exercise two or more times a week

56%

increase was shown in youth participants' willingness to sample new fruits and veggies

85%

of youth participants were able to identify and correctly name all five food groups on the MyPyramid model created by the U.S. Department of Agriculture

Program Partners: U.S. Department of Agriculture Supplemental Nutrition Assistance Program – Education, Reno Housing Authority

“I was really shocked to learn how much sugar that was in certain drinks and foods. It made me look at what drinks I am putting in my body. I also learned what fruits and vegetables do for my body and health.”

– Small Steps 4 Big Changes teen participant



Small Steps 4 Big Changes participants Leonardo Garcia-Juarez and Misty Villa make “Apple Faces” at Mineral Manor in Reno. Photo by Rosanna Perrigo, Truckee Meadows Community College intern.

Good Agricultural Practices | Teaching food-safety practices related to fruit and vegetable production

University of Nevada Cooperative Extension promotes food safety through various projects. Good Agricultural Practices (GAP) training, begun in June 2013 under White Pine County Extension Educator Seth Urbanowitz, offers workshops to Nevada's farmers and others, teaching safe production and handling practices for produce growers. After attending the training, participants may go through a process to be certified one year under the GAP certification. Many schools, restaurants and retailers that purchase local food require producers to be certified. Cooperative Extension Dean Mark Walker also serves on the Council on Food Security for the State of Nevada, created to improve the quality of life and health of Nevadans by increasing food safety.

In 2013:

88

people were trained by the Good Agricultural Practices Program, including not only farmers, but also public health officials and representatives from schools, nonprofits and agricultural agencies

86%

of participants planned to use the technical training they learned from the program

100%

of participants improved their knowledge of Good Agricultural Practices principles and produce safety

Program Partners: U.S. Department of Agriculture Food and Nutrition Service Farm-to-School Grant Program, Nevada Department of Agriculture, Nevada Division of Public and Behavioral Health



Cooperative Extension offers trainings and resources, such as Good Agricultural Practices, to help keep produce healthy and safe.

“The Good Agricultural Practices trainings put consumers at ease and help growers get into schools and new markets because the growers use the practices to learn to keep the food they produce safe.”

– Ashley Jeppson, Nevada Department of Agriculture Farm-to-School grant coordinator

Breastfeeding Support, Promotion and Protection

Educating health care professionals
and nursing moms for healthier babies

Under the umbrella of Breastfeeding Support, Promotion and Protection lies Breastfeeding Basics, for pediatric, obstetric and family practice residents at University of Nevada School of Medicine; Lactation 101, a three-part lactation class for nursing staff; and Mom's Special Gift, for pregnant and postpartum Medicaid-eligible women. The long-term goal is to create a supportive breastfeeding environment. Short-term goals include increasing breastfeeding knowledge, changing attitudes and practices, encouraging breastfeeding initiation, and extending breastfeeding duration. Since Maternal Child Nutrition Specialist Madeleine Sigman-Grant began Breastfeeding Basics and Lactation 101 in 2004, significant increases have been noted in knowledge, intention and confidence by 1,000-plus health professionals completing course evaluations.



Mom's Special Gift Instructor Karla Narcesse (left) instructs a mom-to-be on using a breast pump.

“My teacher has explained many things to me, such as nutrition for both my child and I and how my eating not only affects myself but my child. I thank my teacher for helping me know I am fully capable of taking care of a child now.”

– Theresa Noss, Mom's Special Gift participant

In 2013:

883

women were educated over the phone and provided follow-up until breastfeeding stopped or up to six months after Mom's Special Gift Program completion

9,500

fact sheets were requested by community agencies for pregnant and breastfeeding women

712

health care professionals and community members were taught Lactation 101

900

referrals were received from University Medical Center in Las Vegas

721

women received lactation education in 108 classes taught by bilingual instructors

Program Partners: Alternatives for Women and other OB/GYN private practices; The Breastfeeding Task Force of Nevada; state and local WIC agencies; University of Nevada School of Medicine Pediatric, Obstetric and Family Practice Residency Programs; Kids Health Pediatrics and other private pediatrics practices; Sunrise Hospital; University Medical Center; University Women's Center; Centennial Hospital; Spring Valley Hospital; Southern Nevada Breastfeeding Coalition; St. Rose Dominican, Siena; St. Rose Dominican, San Martin

Stronger Economies Together (SET)

Helping rural communities collaborate and strategize to promote economic development regionally

Stronger Economies Together is a collaborative strategic planning program helping rural communities work together regionally to form economic development plans based on regional current and emerging economic strengths. It was launched nationally by the U.S. Department of Agriculture Rural Development and the Regional Rural Development Centers. In Nevada, University of Nevada Cooperative Extension and the University Center for Economic Development have helped lead the effort, focusing on the Western Nevada Development District (WNDD), including Carson City, Churchill, Douglas, Humboldt, Lander, Lyon, Mineral, Pershing and Storey Counties. Several Cooperative Extension specialists and educators participated in the process and workshops.

From 2012-2013:

220

SET training hours were delivered, a process that guides the development of practical regional economic development strategies

10

SET workshops were held, one in each county, plus a final workshop/presentation

Program Partners: U.S. Department of Agriculture Rural Development; Nevada Governor's Office of Economic Development; Western Nevada Development District; University Center for Economic Development

“My number one goal for this effort was to create a habit of collaboration across this region. That has been achieved and much more. We now have a pragmatic plan for sharing strengths to create economic growth across the region.”

– Sarah Adler, state director of U.S. Department of Agriculture Rural Development on the completion of SET's “Economic Development Blueprint for Western Nevada”



The National Association of Development Organizations presents a group from the SET team and the Western Nevada Development District a 2012 Innovation Award, recognizing their creative approaches to regional community and economic development. Left to right: Tom Harris, Ron Radil, Steve Lewis, Sarah Adler, Michael Guss, Richard Tremblay.

Beginning Farmer and Rancher Financial Mentoring

Helping today's farmers and ranchers make sound economic decisions and succeed

The number of small-scale, specialty or “niche” farmers and producers in Nevada is increasing. These farmers who may be growing heirloom tomatoes and eggplant for high-end restaurants, for example, need to consider different factors for business success than Nevada's traditional, larger-scale farmers, such as alfalfa growers. The Beginning Farmer and Rancher Financial Mentoring Program is a collaboration of University of Nevada Cooperative Extension and the University Center for Economic Development to help all Nevada's agricultural producers develop budgets specific to their enterprises. Enterprise budget workshops are incorporated into other educational programs, such as Herds & Harvest, and one-on-one mentoring is also provided to help producers map a path to success.



The Beginning Farmer and Rancher Financial Mentoring Program helps Nevada's small-scale or “niche” farmers, such as those growing heirloom tomatoes, to map a path to success by developing enterprise budgets.

From 2011-2013:

212

Herds & Harvest program participants were instructed during 32 classes on the development and use of enterprise budgets

51

producers were mentored to develop personalized enterprise budgets for their specific agricultural enterprises

30%

of Herds & Harvest participants reported that enterprise budget development was the most useful part of the program

“Choices for expansion of crops, markets and purchasers were largely determined by help from our Extension office.”

– producer assisted by the Beginning Farmer and Rancher Financial Mentoring Program

Program Partners: U.S. Department of Agriculture National Institute of Food and Agriculture, Farm Service Agency and Risk Management Agency; University of Nevada, Reno College of Business and University Center for Economic Development

Unmanned Aerial Systems (UAS)

Promoting economic development and innovative tools to better manage natural resources

Unmanned Aerial Systems (UAS), or drone, research is being conducted by faculty from Cooperative Extension as well as the Colleges of Engineering; Science; and Agriculture, Biotechnology and Natural Resources, in collaboration with Drone America, a Reno-based company. Cooperative Extension Dean Mark Walker is particularly interested in exploring UAS use for wildfire hazard assessments and suppression, wildlife habitat surveys, vegetation assessments and environmental mapping. With its open spaces and clear skies, Nevada is a prime candidate to develop the UAS industry. In November 2013, Cooperative Extension led a statewide UAS Development Workshop with the Governor's Office of Economic Development and the University Center for Economic Development, bringing together interests to promote the industry. See below.

In 2013:

97.3%

of participants responding to the workshop survey said they would be willing to attend future, more intensive workshops on UAS development in Nevada

11

sites throughout the state were used by participants tuning in to the workshop, via Cooperative Extension's interactive video system and offices

104

people participated in the UAS Development Workshop, including faculty from several Nevada System of Higher Education institutions, government officials and executives, and leaders of Nevada's business community

Program Partners: Drone America; University of Nevada, Reno Colleges of Engineering, Science, and Agriculture, Biotechnology and Natural Resources; University Center for Economic Development; Nevada Governor's Office of Economic Development



This Phoebus Series II Unmanned Aerial Systems sports University of Nevada, Reno colors and logos, illustrating the strong partnership the University and Cooperative Extension have forged with Drone America.

“We think drones can help us gather large-scale data to assist with management of natural resources cheaper, better and faster than current methods.”

– Cooperative Extension Dean Mark Walker

Evaluation of Perennial Grasses for Cellulosic Biofuel

Despite recent interest, research shows growing grasses for biofuel not currently economically beneficial

Alternative Crops and Forage Specialist Jay Davison was receiving multiple inquiries about growing perennial grasses as a low-water-use biofuel crop in cold desert climates. So in 2007 and 2008, he planted four cool-season and five warm-season grasses in Nevada's Mason Valley, watering them with three different regimens – 50, 75 and 100 percent of normal. Working with Elizabeth Leger, associate professor at the College of Agriculture, Biotechnology and Natural Resources, and other colleagues, he concluded the six-year project with published research in *ScienceDirect's* July 2014 issue. Although some cool-season varieties may be worthy of future study, the research showed that currently, perennial grasses would not save water and would be less profitable for farmers. In addition, the yields of the perennial grasses were less than or equal to that of the average yields of alfalfa.

From the 2007-2014 research project:

Triple

The amount by which alfalfa prices currently exceed prices for perennial grass biomass in most locations

2

of the nine tested varieties that may be worthy of future research

Program Partners: University of Nevada, Reno College of Agriculture, Biotechnology and Natural Resources and research paper coauthors Lauren M. Porensky, Elizabeth A. Leger, W. Wally Miller, Erin M. Goergen, Erin K. Espeland, Erin M. Carroll-Moore; two ranches in Mason Valley

“None of them make any sense. They don't save any water, and they are worth maybe a third of what our normal alfalfa crops are worth. You're going to be asking a farmer to grow something that will produce the same amount or less, and he'll get a third of the price for it, if he can find a market for it.”

– Cooperative Extension Alternative Crops and Forage Specialist Jay Davison, commenting on growing perennial grasses as a low-water-use biofuel crop today



Biomass grown for the study on two acres in western Nevada's Mason Valley is harvested.



University of Nevada
Cooperative Extension

www.unce.unr.edu

UNIVERSITY OF NEVADA
COOPERATIVE EXTENSION MISSION

To discover, develop, disseminate, preserve and use knowledge to
strengthen the social, economic and environmental well-being of people.



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Caliente, NV 89008-0728
775-726-3109

Lyon County

P.O. Box 811
504 S. Main St.
Yerington, NV 89447-0811
775-463-6541

Mineral County

P.O. Box 810
205 S. A St.
Hawthorne, NV 89415
775-945-3444

**Nye County/
Esmeralda County**

P.O. Box 231
#1 Frankie St., Old Courthouse
Tonopah, NV 89049-0231
775-482-6794

1651 E. Calvada Blvd.
Pahrump, NV 89048
775-727-5532

Pershing County

P.O. Box 239
810 Sixth St.
Lovelock, NV 89419-0239
775-273-2923

Washoe County

4955 Energy Way
Reno, NV 89502-4105
775-784-4848

White Pine County

950 Campton St.
Ely, NV 89301-0210
775-293-6599

“Almost immeasurable, moreover, is the educational value of the great extension program of the land-grant institutions. Their program involves adult education in practically all fields, as well as a large number of practical projects for boys and girls. These extension organizations have developed a contact with life and a technique for service that has greatly facilitated the inauguration of many agencies for rural welfare and civic betterment.”

– W.J. Kerr, Former President of Oregon State Agricultural College, 1931,
in “The Spirit of the Land-Grant Institutions” address

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