

ANNUAL YIELD



School of Forestry
1997



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School of Forestry

Northern Arizona University
Flagstaff, Arizona

Published by:
NAU Student Chapter
Society of American Foresters

Michael C. Lierz
Editor

Dedicated to:

Mrs. M

In Memory of Charles Minor...

Charles O. "Chuck" Minor was born June 22, 1920 in rural Greene County, Iowa. He received his bachelor's degree in forestry from Iowa State University in 1941 and his master's and doctoral degrees in forestry from Duke University in 1942 and 1958, respectively. Minor served in the U.S. Army as a radio code instructor and radio operator as well as teaching at Louisiana State and Clemson Universities before taking the position of dean of the School of Forestry at NAU in 1958.

During his 25 year stay at NAU, Minor provided the foundation for the School of Forestry, now part of the College of Ecosystem Science and Management, which has become one of the cornerstones of the university. "He developed the School of Forestry to the point to be a nationally recognized program," said retired forestry professor Ernest Kurmes.

After retiring from NAU in 1983, Charles Minor and his wife, Mary, moved to Sedona and then to Albuquerque in 1992. He passed away in Albuquerque on January 31, 1997. Minor's vision and tireless efforts will forever be remembered by those whose lives he has touched.

We will miss you Chuck.



Thoughts from the Dean:

Recently I had a chance to reflect on my experiences as a student and how belonging to a forestry club contributed to my professional development. This happened when I was reading a Forestry Club yearbook from West Virginia University dated the year I graduated and noticed that two of my fellow students in the Club were now deans at accredited Forestry Schools. I think that this says something about the value of students getting experience by participating in activities sponsored by their professional club or society.

This year I was particularly pleased to learn that the NAU Forestry Club changed to a Student Chapter of the Society of American Foresters. The change reflects a maturation process in which students are willing to take on more responsibility early in their training to become members of our professional society when they graduate from NAU, The College of Ecosystem Science and Management, and the best School of Forestry in the United States. Best wishes for continuing success.

David Patton - Dean, College of Ecosystem Science and Management



Greetings from the Chair:

Having purchased this year's edition of the *Annual Yield* is a wonderful expression of your continued support for the Forestry Club, the School of Forestry, and Northern Arizona University. On behalf of the current Forestry Club members, thank you very much. Without your support, preparing the *Annual Yield* would not be possible.

I am happy to say that Forestry at NAU is alive and well. The School has a number of very devoted and involved Forestry Club members. As current President Matt Preece tells you elsewhere in this issue, the Forestry Club has changed its name to the Student Chapter of the Society of American Foresters. This came about as a result of the Fall Semester Annual Meeting of the Society of American Foresters at Albuquerque, New Mexico. Thirty-five undergraduate and graduate students from the School attended. Having this opportunity to rub shoulders with other students and forestry professionals prompted the club to realign itself more closely with the Society and the Peak's Chapter.

I am pleased to serve as the faculty advisor for the Chapter and am planning on continuing in this capacity until either the students get tired of me or a younger faculty member wants to get involved. Through this year the Chapter has met almost every Thursday night. The Chapter is going to challenge the Faculty to a softball game, the result of which I will tell you next year. Thanks again for supporting NAU Forestry. Best regards.

Don Arganbright - Chair, School of Forestry

Farewell:

Dr. Ernest A. Kurmes

I was born in Brooklyn, New York and grew up there and in northern New Jersey. In 1953 I graduated from Lehigh University with a degree in “conservation”, a program which combined work in biology and geology and was a good background for later forestry studies. After two years in the U.S. Air Force, I entered graduate school at Yale University, where I spent 6 years obtaining a master of science in conservation, a master of forestry, and a Ph.D. in forest ecology.

In 1961 I went to the department of forestry at Southern Illinois University, where I taught forest ecology, silviculture, farm forestry, forest watershed management and field courses. After 6 years in the muggy, buggy hardwood forests of southern Illinois, I moved to Flagstaff in 1967 to teach ecology, silviculture, soils and the liberal studies environmental conservation course. NAU had only changed from Arizona State College a year before, and there were 9 of us on the faculty. Over the years the faculty has grown and much more emphasis on research has developed. It has been a great 29 years here, as I encountered many wonderful colleagues and interesting students.

Despite retiring in May of 1996 after 29 years on the faculty, Dr. Kurmes taught measurements and silviculture in Semester A during the fall semester. Now he is fully retired and ready to move on to other things, although he plans to stay in Flagstaff.

Faculty...



Donald Arganbright



Charles Avery



Wally Covington



Ron Trosper



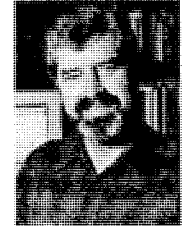
Jon Souder



Brent Wood



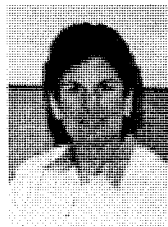
Michael Wagner



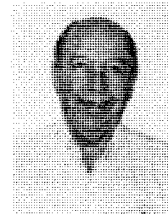
Merton Richards



Elizabeth Taylor



Pamela Foti



Ernest Kurmes



Ken Ingols



Bruce Fox



David Patton



John Bailey



Paul Beier



Stephen Hart



Carol Chambers



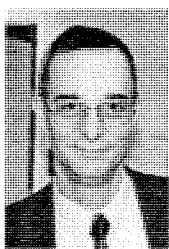
Aregai Teele



Patricia Jahnke



Laura DeWald



P.J. Daugherty



Thomas Kolb



Denver Hospodarsky



Robert Larson



Martha Lee



John McTague

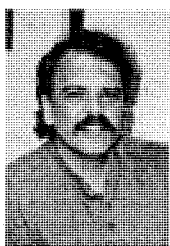


Margaret Moore

Staff...



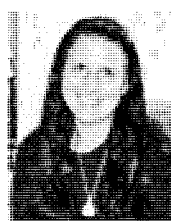
Robert Weaver



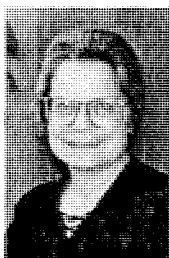
Tim Bohn



Linda Stratton



Olivia Janis



Mary Hines



Peggy Richardson



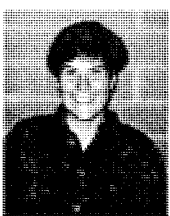
Inez Light



Steve Andariese



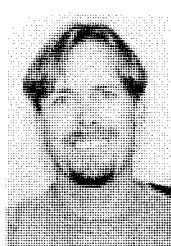
Peter Fule



Amy Waltz



David Huffman



Steven Wood

Spring 1996 Graduate Students

Ph.D.

Student Name

Tentative Thesis Topic

Barber, Jarrett

Systems modeling for ecological restoration of ponderosa pine ecosystems.

Blows, Sulojana

An improved heuristic using an integer programming formulation for large-scale forest management scheduling.

Demetry, Athena

Regeneration patterns in giant sequoia-mixed conifer forests: implications for ecological restoration.

Dewhurst, Stephen

Adaptive forest ecosystem management planning.

Fule, Peter

Comparison of changes in disturbance regimes and ecosystem structure at paired biosphere reserves in Durango, Mexico and Arizona, U.S.A.

Hall, Patricia

The landscape structure of home ranges of northern goshawks (*Accipiter gentilis*) breeding in central northern Arizona.

Hutt, Sherry

No study program on file.

Ingraldi, Michael

Demography of northern goshawks.

Kerns, Becky

Vegetation changes in montane meadow and subalpine grasslands in northern Arizona.

Nichols, John

No study program on file.

Onkonburi, Jeanmarie

No study program on file.

Ren, Lizong

Genetic variation in woody plant resistance to insect herbivores.

M.S.F.

Aigner, Paul

The effect of firewood harvesting on bird communities in California oak woodlands.

Baral, Raja

No study program on file.

Baum, Bradley

No study program on file.

Behan, Jeffrey

Assessing visitor perceptions of crowding and concurrent recreational activities in the Redrock Area, Arizona: A visual approach.

Berube, Charles

The utility of Landsat TM data for estimating ponderosa pine canopy cover.

Student Names

Tentative Thesis Topic

Candy, John

A systems approach to modeling terrestrial vertebrate habitat in southwest forest ecosystems.

Censioso, John

Dichotic perception of the effects of reduced timber harvest levels.

Delaney, David

Effects of helicopter overflights on nesting Mexican spotted owls.

Diaz, Javier

Sustainable development for Surutato, Mexico.

Dodds, Kimberly

Western spruce budworm as a regulator of resources, physiology, and growth of douglas-fir seedlings.

Feeney, Shelly

The effects of restoration treatments on old-growth ponderosa pine physiology and insect resistance.

Gordon, Janet

Loss and recruitment of snags and logs during prescribed fire.

Griffis, Kerry

Wildlife use of aspen stands in northern Arizona.

Haubensak, Karen

Soil nitrogen transformations in contrasting forest ecosystems in Oregon and New Mexico.

Heinlein, Thomas

Postsettlement changes in stand structure and fire disturbance regimes in northern Arizona mixed conifer forests.

Henke III, Charles

Comparative analysis of precipitation, streamflow, and sediment yield from three small forested watersheds in Arizona.

Holmberg, Kristina

Effects of tree density on water relations and photosynthesis and a second-growth ponderosa pine stand.

Hughes, Donna

The effects of flooding on germination of cottonwoods along the Verde River, Arizona.

Jenness, Jeff

Impact of fire on Mexican spotted owls.

Kaye, Jason

Alteration of the nitrogen cycle following ecological restoration of a ponderosa pine forest.

Kline, Norma

Maximum density concept in uneven-aged ponderosa pine stands.

Leonard, Ariel

Differential effects on forest health from two long-term institutional arrangements.

Little, Usha

Community forestry on new lands: A critical assessment of the approach for Navajo communities.

Mann, Sheri

Phenotypic variations in wastewater tolerance and suitability in Populus for northern Arizona.

Menzel, Jody

Restoration of pinyon-juniper woodlands.

Morfin, Victor

No study program on file.

Student Name

Moser, Laura

Tentative Thesis Topic

Genetic variation in interior douglas-fir (*Psuedotsuga menziesii* [Mirb] *Franco* var. *glauca* [Beissn.]) populations on the Navajo reservation and their resistance to dwarf mistletoe (*Arceuthobium douglasii* [engelm.]) infection.

Naumberg, Elke

Influence of light regime on grass species composition in southwestern ponderosa pine forests.

Pierskalla, Chad

Outdoor recreation benefits and the recreation opportunity spectrum: and application of ecological perception theory.

Pina, Victoria

No study program on file.

Sauder, James

Valuation of neem (*Azadirachta indica*) and its role in the forest products industry of developing nations.

Sayers, Rebecca

No study program on file.

Scarbrough, Dwight

Variation in growth, survival, phenology, and aphid herbivory on selected *robinia* genotypes in northern Arizona.

Smith, Hiram

Implementing ecosystem restoration and management, Mt. Trumbull, Arizona.

Springer, Judith

Spatial and abiotic controls of nitrogen cycling processes in forest soils.

Stone, Joseph

Comparison of spring vs fall prescribed burning on herbage production in northern Arizona.

Voth, Barbara

No study program on file.

Wright, Robert

Fire effects on fine roots, mycorrhizal fungi, and nutrient dynamics in southwestern ponderosa pine forests.

Zimmerman, Julie

Patterns of floristic diversity between Pumphouse Wash and its major tributaries.

Semester C - 1996

Anderson, Dana Lynne	Mills, Darla Jean
Austin, Carmelita Marie	Myers, Mindy M.
Bertrand, Joshua Mitchell	Nararro, Martin Daniel
Dial, Erik Kenneth	Palmer, Thomas A.
Galbraith, Jeffrey David	Powskey, Richard
Gonzalez, Arthur Benjamin	Russell, Daniel L.
Hall, Jaelith Lenee	Sewall, David George
Halloran, Keith Victor	Shaff, Scott Edward
Hulburd, Aaron Todd	Skally, Chad William
Hulke, Gregory David	Sorenson, Andrew Todd
Lee, Shana Michelle	Thomas, Eric Matthew
Little, Christopher Lewis	Tomlinson, Kyle K.
Lloyd, Patricia Diane	Walther, Jeffrey R.
McConchie, Robert Scott	Wieser, Phillip Lewis

Fall 1996 Semester A



**Addis,
Keith V.**



**Albion,
Christopher S.**



**Allen,
Scott E.**



**Andrews,
William K.**



**Awang-Damit,
Hamidah**



**Bloom,
Brian R.**



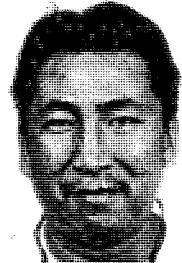
**Brown,
Dawn L.**



**Csaszar,
Nicole M.**



**Everson,
Alison M.**



**Frank,
Jim**



**Frye,
Katherine S.**



**Gary,
Stephanie D.**



**Hegg,
Timothy E.**



**Liles,
Charles D.**



**Madland,
Brian P.**



**Martinez,
Alexander P.**



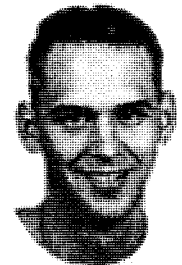
**McCabe,
Veronica A.**



**McDonald,
Brent W.**



**Muffoletto,
Todd S.**



**Peterson,
David C.**

Fall 1996 Semester A



**Pieper,
Douglas H.**



**Rable,
Andrew J.**



**Redondo,
Daniel C.**



**Schwartz,
Marc D.**



**Seweyestewa,
Carl H.**



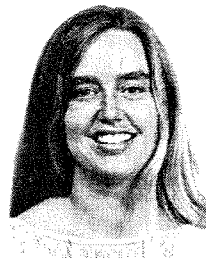
**Sheehan,
Brian J.**



**Shreve,
Rebecca K.**



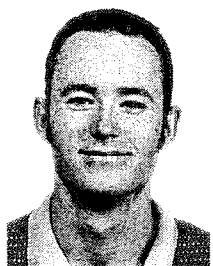
**Sieg,
Matthew J.**



**Smith,
Katheryn E.**



**Stevenson,
Andrew J.**



**Tew,
Alan**



**Towne,
Christopher T.**

Forestry Honors Convocation

Friday, April 12, 1996

SHERRIE ALFORD FORESTRY SCHOLARSHIP

Erik Kenneth Dial

APPLEQUIST AWARD

Jaelith Lenee Hall

**ARIZONA WATER RESOURCES COMMITTEE
FORESTRY SCHOLARSHIP**

Eric Matthew Thomas

RAMON ASO FORESTRY SCHOLARSHIP

Carmelita Marie Austin

NEIL A. BARRICK FORESTRY SCHOLARSHIP

Carmelita Marie Austin

DICK W. BERRY FORESTRY SCHOLARSHIP

Darla Jean Mills

ROBERT A. BLASER FORESTRY SCHOLARSHIP

Eric Matthew Thomas

**LAUREL & DOROTHY BRENN FORESTRY
SCHOLARSHIP**

Scott Edward Shaff

**WILLIAM L. & DORIS M. CORNETT FORESTRY
SCHOLARSHIP**

Mindy M. Myers

TONY CZAK MEMORIAL SCHOLARSHIP

Rebecca K. Shreve

DAVE'S LUMBER FORESTRY SCHOLARSHIP

David George Sewall

du Bois FOUNDATION SCHOLARSHIPS

Nicole Marie Cszasz
Todd Samuel Muffoletto
Matthew James Sieg

**DUKE CITY LUMBER COMPANY FORESTRY
SCHOLARSHIP**

Jeffrey David Galbraith

VON DUNFORD FORESTRY SCHOLARSHIP

Nicole Marie Cszasz

**EMPIRE SOUTHWEST FORESTRY HONOR
SCHOLARSHIP**

Andrew Todd Sorenson

**FLAGSTAFF CABINET COMPANY FORESTRY
SCHOLARSHIP**

David George Sewall

FORESTRY ALUMNI SCHOLARSHIP

Patricia Diane Lloyd

FORESTRY CLUB AWARD

Mindy M. Myers

PAMELA & DAVID GARRETT FORESTRY SCHOLARSHIP

Arthur Benjamin Gonzales

GREENLAW FORESTRY SCHOLARSHIPS

Stephanie Diane Gary
Brian Patrick Madland

**WILLIAM L. HOLMES MEMORIAL FORESTRY
SCHOLARSHIP**

Mindy M. Myers

TOMMY KNOLES, Jr. FORESTRY SCHOLARSHIP

Shana Michelle Lee

LEE NEWMAN FORESTRY SCHOLARSHIP

Arthur Benjamin Gonzales

RAYMOND FOUNDATION FORESTRY

Thomas A. Palmer

SHARALON RUNYON FORESTRY SCHOLARSHIP

David George Sewall

**VIKKI & DWIGHT SCARBROUGH FORESTRY
SCHOLARSHIP**

Todd Samuel Muffoletto

DAVE SCHMIDT FORESTRY SCHOLARSHIP

Chad William Skally

**SCOTTSDALE SPORTSMAN'S CLUB CONSERVATION
SCHOLARSHIP**

Jaelith Lenee Hall

HAROLD SHULMAN MEMORIAL FORESTRY SCHOLARSHIP

Darla Jean Mills

JOSEPHINE SOULEN FORESTRY SCHOLARSHIP

Dana Lynne Anderson
Julie Lynn Earp
Aaron Todd Hulburd
Gregory David Hulke
Chad William Skally

GLENN VOORHIES SCHOLARSHIP

Shana Michelle Lee

HELEN WRIGHT MEMORIAL FORESTRY SCHOLARSHIP

Thomas A. Palmer

CONGRATULATIONS

Xi Sigma Pi

HISTORY OF XI SIGMA PI

Forestry Honor Society

Xi Sigma Pi is the oldest and largest national forestry honor Society originating in the colleges of the United States of America. The objectives of Xi are: to maintain a high standard of scholarship in forest resource management education, to work for the improvement of the forest resource management profession, and to promote a fraternal spirit among those engaged in activities related to forest resources.

All juniors, seniors and graduate students, studying in the field of forestry, with a cumulative G.P.A. of 3.0 or higher are eligible to be a member of Xi Sigma Pi.

New Members

Nicole Csaszar
Dave Delaney
Stephanie Gary
Ariel Leonard
Brian Madland
Alex Martinez
Andrew Stevenson



1996-97 MEMBERS

Executive Committee

Chad Skally	Forester
Mindy Meyers	Associate Forester
Shana Lee	Secretary/ Treasurer
Andy Sorensen	Ranger
Jaelith Hall	Service Project Chair

Members

Dana Anderson
Julie Earp
Greg Hulke
Darla Mills
Scott Shaff
Dave Sewall

SERVICE PROJECTS

Forestry Deans Honored

In the spring of 1997 the members of Xi honored two past deans because of their devotion to the NAU School of Forestry.

During the Fall of 1996 the members of Xi voted to name the study room after Dean Minor because of his devotion to helping students while he was teaching at NAU. Xi also voted to commemorate a small area of land outside the forestry building to Dean Garrett due to his hard work in helping in the creation of the new forestry building.

At the SAF conference in November, Dean Minor was told by Xi that he was being honored the next semester. Sadly, though, Dean Minor passed away a few months later. On February 28 a plaque was placed outside the study center in honor and memory of Dean Minor. His family and many friends were present at the dedication ceremony. The study center is now officially the "Minor Student Study Center".

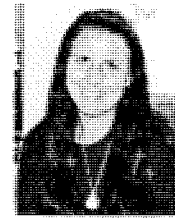
During the honors convocation, April 11, Dean Garrett will be honored. A plaque in his honor will be placed on a rock outside the north entrance of the forestry building, dedicating this space as a natural area.

Native American Forestry



Ronald L. Trosper, Ph.D.; Director

Program



Olivia Janis, Counselor

The Native American Forestry Program has had and anticipates some changes in personnel. In 1996, K. Olivia Janis joined the Program staff in the position of Counselor. Her predecessor, Chris Atine, enrolled to study for a Ph.D. in Social Work at the University of Denver. In 1997, Dr. Thomas Alcoze-Goulard and the forestry faculty agreed that he transfer from the Center for Excellence in Education to the School of Forestry; his specialty is traditional ecological knowledge, with an emphasis on Native Americans. Dr. Jon Souder has agreed to serve as Acting Director in 1997-98, while Ronald Trosper in gone on sabbatical.

The activities of the program have continued: a monthly family dinner, an annual graduation dinner (four forestry students and one geography graduate in 1996-97), visits by professional mentors, and support for summer research by undergraduates. The graduate program had one student, Victor Morfin, complete his thesis, and Darryl Martinez started his research in cooperation with the San Carlos Apache Tribe.

NAU Student SAF Chapter

President's Message:

The NAU Student Chapter of the Society of American Foresters (NAU Forestry Club) seeks to promote and increase student interest in the field of forestry. We strive to accomplish this task through social as well as professional activities. Some of our activities this year included attendance at the National SAF convention, research inventories at the Pearson experimental wilderness area, the annual fire school, a homecoming float and a camping trip to Sedona, just to name a few.

Our main focus over the past year has been to increase membership and involvement in the chapter. Thanks to a devoted executive council we are slowly realizing these goals. I challenge next year's council to continue the traditions of the chapter and start new ones as well. With persistence and dedication the chapter will continue to grow stronger.

I would like to extend my thanks to everyone who has helped the organization grow throughout the year. I would also like to thank the students for their efforts and strongly encourage them to continue their participation in the upcoming chapter activities. Most of all, I want to offer my sincere thanks to all alumni, faculty, and students who purchased this year's edition of the *Annual Yield*.

Sincerely,
Matthew Preece
President '96-'97 (sophomore)

Executive Council

Matthew Preece - President
Shanna Smith - Vice President
Dawn Brown - Treasurer
Nicole Csaszar - Secretary

Members:

Michael Lierz	Kevin Booth
Kristy Ruggles	Kubili Condit
Scott Dunn	Tim McShane
Jodi Bauman	Kerry Noland
Brandon Harper	Andrew Hubbs
Hans Germann	Alan Tew
Casey Hale	James O'Nele
Tish Henney	Scott Allen

Quotes and Musings

“The forests are the flags of Nature. They appeal to all and awaken inspiring universal feelings. Enter the forest and the boundaries of nations are forgotten. It may be that sometime an immortal pine will be the flag of a united and peaceful world.”

~ Enos A. Mills

“In the woods we return to reason and faith.”

~ Ralph Waldo Emerson

“Each generation takes the earth as trustees. We ought to bequeath to posterity as many forests and orchards as we have exhausted and consumed.”

~ J. Sterling Morton

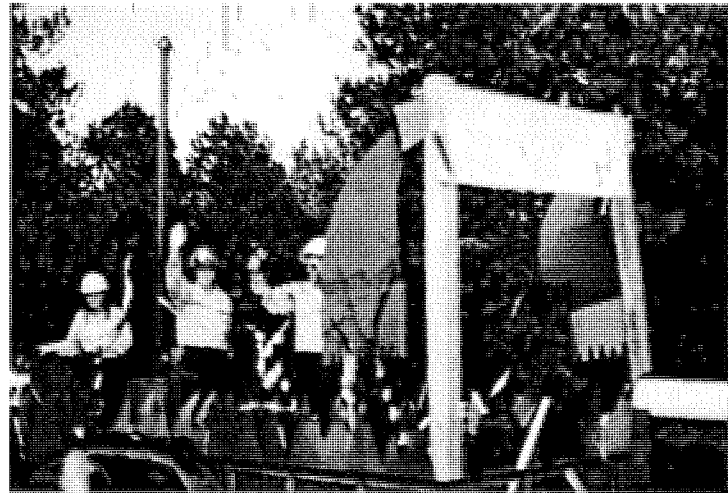
With the greatest pressure comes the greatest development.

~ E.D. Vest

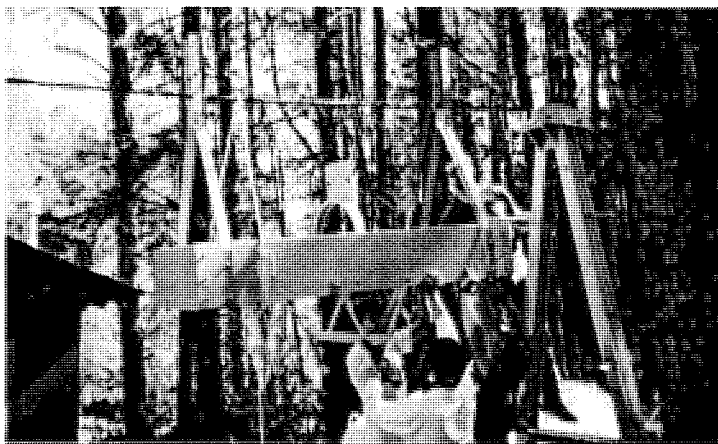
Photos



Fire School, 1996



1996 Forestry Club Float



Bar-M Watershed Hydrology Research and Teaching Instrumentation Site

A Letter from the Editor

As work on this year's *Annual Yield* draws to a close, I am finally given a chance to reflect upon this, my first semester here at NAU. When I first stepped foot on campus with my sights set on Forestry, I yearned for an opportunity to get involved with SAF student chapter activities. Little did I know that I would become editor of the first edition of the *Annual Yield* to be published in three years. Lacking the aid of prior yearbook experience, not to mention a "how to construct a yearbook" guide, I knew this project would be of considerable size. Because of the tireless efforts of my co-editor Kristy Ruggles, I am pleased to present to alumni, faculty, and fellow students this year's edition of the *Annual Yield*.

As newly elected student chapter president of the upcoming school year, I would also like to take this opportunity to congratulate the other newly elected officers. The executive council for 1997/98 will include Brandon Harper, Vice President, Jodi Bauman, Secretary/Treasurer, and Kristy Ruggles, Historian. The prospect of being a part of next year's club is an exciting one. I wish all of the members a safe and happy summer and hope to see you back next fall.

Sincerely,

Michael C. Lierz, Editor



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Title page photo: Stephen P. Schweitzer

Faculty & Staff: Michael C. Lierz

Photo page: Aregai Tecle & Shanna Smith