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Ames Forestry Club

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This year's cover was designed by Kathy Keables Bohlen, a senior majoring in Graphic Design at Iowa State University. After graduation, Kathy and her husband plan on moving to Minneapolis, Minnesota where she will pursue a career as a graphic designer. Her cover design was selected from twelve outstanding entries, produced by students of the Senior Graphics Design class at ISU.
Some of the AMES FORESTER Staff taking a well deserved work-break to pose for the camera.
(L to R): Brien Schumacher, Marty Schroeder, Dora Schrodt, Randy Clark, Jeff Waterhouse, and Mike Bruen.

ABOUT THE 1984 AMES FORESTER

The AMES FORESTER has the three fold purpose of giving recognition to current students and staff in the Forestry Department, keeping alumni and other patrons up to date on the happenings in the Department, and informing all readers with Feature Articles which cover topics not found in the popular forestry magazines.

The staff and I feel this, the 1984 AMES FORESTER, meets all of these stated objectives with a high degree of excellence.

It is no coincidence that the term ‘excellence’ is used to describe this year’s AMES FORESTER. This term will be found throughout the publication which ensues the theme “FORESTRY EXCELLENCE IN THE EIGHTIES.” This theme is adopted from the ISU motto for this decade.

The Feature Articles expand on several aspects of how Forestry is an “excellent” field of endeavor. I extend many thanks to the authors of these fine articles for the time and effort they were willing to offer.

I would also like to take this opportunity to formally thank my hard-working staff, the authors of the student articles, and the patrons who made this magazine financially possible.

Sincerely,

Randy Clark

1984 AMES FORESTER EDITOR
It stands to reason that any 80-year-old organization will have had its ups and downs. However, this department’s students, faculty and alumni can profitably look back on those years since 1904, when Iowa State Forestry began, with the sure conviction that excellence has been pursued here by many means.

A particularly revealing time to observe was that of fifty years ago when times were hard and the environment was in bad shape because of exploitive use and lack of concern. But this was the time, too, when we were perched on the brink of one of the great conservation movements of our history — the Emergency Conservation Work (ECW) program that led to the famed CCC that set so many foresters on the road to successful careers.

G. B. MacDonald was State Forester for Iowa then as well as Department Head for Forestry and newly appointed Director of the ECW. Each of these positions was immensely demanding and I, as one of his successors, marvel at the energetic excellence of this pioneering forester. In the 1934 AMES FORESTER Professor MacDonald wrote, “I should like to take this opportunity to pass out a word of encouragement to the Ames foresters, especially those engaged in the Emergency Conservation program, and to commend them on their participation in a movement which may have results in the future far beyond what we can now see.” The correctness of Prof. Mac’s encouraging and optimistic prediction can now be seen in the recreational roads, shelters and lakes built; the eroding hillsides healed; the streams improved and the forests planted; the tree diseases controlled, and forest fires fought.

Much has been written of the impact of the various conservation programs that sprang from that national emphasis on conservation stimulated by an astute President and hundreds of forestry professionals. But the success stories that are of most interest to those of us directly involved in forestry in 1984 are those about the people whose careers began in the depressing times of the thirties but culminated in success during the ensuing fifty years. For example, the article in this present AMES FORESTER by the renowned Dr. William Duerr is significant because he is the same Bill Duerr who was the student editor of the 1934 AMES FORESTER. Another example lies in the interesting story in this issue about the cutting of the 1983 National Christmas Tree as told by Larry Gibson of the Class of 1933. He writes that he played croquet beside that tree where it was newly planted at the CCC camp near Fifield, Wisconsin when he was a newly graduated “Ames Forester” and stationed there. Fifty years later he helped saw down that tree and prepare it for its trip to the White House grounds in celebration of the Golden Anniversary of the Civilian Conservation Corps. These are but two of the many illustrations of the obvious fact that there is life and a successful career even after the beginnings look bad.

It would appear that the most appropriate confirmation of excellence of a university is found in the people who have graduated from it. Their contributions to society as well as to the profession and practice of forestry, then, are more worthy measures of excellence than are buildings, budget and bally-hoo — although it must surely be recognized that each of those play a part in the admitting, guiding and graduating of ultimately successful people.

“For excellence, it seems to me,” said President Parks in his inaugural address in 1965, “is a process of becoming, rather than a state of being….it is in the striving for excellence that an institution develops that spirit and tone, that lively community of learning, that creative environment for scholarship which makes for excellence.”

Common talk among foresters, whether they be industry or government employed, woodlands or manufacturing oriented, teacher or student, neophyte or old-timer, is that present conditions are hard, the future is uncertain and the present conditions are hard, the future is uncertain and the public image of forestry is distorted. When pessimism is the dominant theme of a profession bad times are made to seem worse. Students see little reason for diligence if effort is not to be rewarded; curriculum planners find
themselves ill at ease in proposing truly demanding courses; lessened expectations lead to declining enrollments and several pillars of excellence weaken — the numbers of superior students decline in both real and relative terms, stimulation of faculty members is reduced and, in turn, the excitement of the classroom fades. Finally the regression continues as fewer students are attracted and the essential flow of financial support and the esteem of popularity wane.

The foregoing scenario could be played out right now for all the elements of pending tragedy are at hand. If one were to believe with each new depression that such travail had never been imposed before it might be tempting to repeat the childhood lament:

Oh, I wish I were dead now.
I'll take to my bed now.
I'll cover my head now.
And have a good cry.

But the most casual of historic observation shows us that we have always had bad times rolling through like storm fronts in March. Thomas Paine warned of being a "summer soldier and a sunshine patriot." Dickens immortalized the stage-setting paragraph that begins, "It was the best of times, it was the worst of times . . . it was the spring of hope, it was the winter of despair, we had everything before us, we had nothing before us . . ." President Parks spoke to the ISU faculty in 1969 of " . . . an age of crumbling illusions. Old images are having to give way to new realities. Traditional beliefs are being shattered, or are being forced to face new tests, new challenges."

If history, both ancient and recent, is to tell us anything then it must surely be that we are destined to be seasoned and hardened by adversity. Therefore, if that be so and difficulty is the norm then that difficulty is really of no more significance than uphill is to the bicyclist. It's there, either boring or demanding, but there, and is the obvious opposite side of the more pleasant condition of coasting downhill.

As the Depression of the thirties led to the CCC's and a widespread conservation movement for foresters, and as World War II provided the GI Bill for thousands of service men and women and offered an entrée into forestry, so may we yet look for signs of good things to come from this past decade of declining fortunes in professional forestry. While perishingly Pollyannish to expect good to come from every ill there may well be signs of new realities that can raise our profession to new heights.

Let us consider a few of our least favorite things. Summer employment through volunteerism. While I believe firmly in charitable activity and going out of one's way to learn, even if not paid, I must admit to a reluctance to having young foresters sold short and forced into working for nothing. However, the bright side is that the government agencies who are soliciting volunteer labor admit to some embarrassment about this, and a strong tendency appears to exist to give really good guidance and experience to the volunteer with the extra incentive of offering paid work to those who have first volunteered. Summer volunteers seem to be coming back to campus with less money than their paid counterparts but with high enthusiasm for the experiences gained.

Restricted employment after graduation. Nothing galls the educator and the newly-graduated so much as finding that professional education is difficult to market. Yet there is proven biologic advantage in survival of the fittest. Agencies and industrial organizations have become tougher but more efficient and are similar to students who, facing graduation, have made decisions to further their education and prepare for a world that demands, but also recognizes, talent. Having lived through some very plush times and watched poor quality people do as well as high quality people because there were apparently no limits to employment and reward, I have witnessed considerable dissatisfaction by the talented who found that, just as bad money drives out good, so do soft times allow the weak to prevail. A stronger profession made up of the best people may result from present travail.

Restricted support for education. The structure that has provided for excellence in teaching, extension and research in the past seems to be crumbling with society seemingly unwilling or unable to pay the bills. In the community of students and faculty that makes up the university this seems a cruel burden. None-the-less, structures prompt us to reevaluate what is important and consider anew the charge, beloved of economists, to properly allocate scarce resources. Forestry schools now have banded together to reduce duplication of research effort and to identify areas where new work needs to be done. While it is not to be expected that one state university would send its students to another state's school there is beginning to be a tendency to share such items as summer camps, specialized equipment for teaching and research and to support one another in numerous ways. Bit by bit our profession is getting leaner and the professionals are getting stronger.

Society's dim view of the conservation professional. In a land of abundance there is little prestige in knowing how to make the infinitely available go a little further. But in lands where the reservoir of wood can be seen to be nearly empty and where the ammenities of recreation and esthetics and the necessities of clean air and water are at risk the resource manager takes on new prestige. When that time comes to America, continued on page 11
FORESTRY EXCELLENCE IN THE 1980s

by William A. Duerr

Forestry excellence means excellent foresters. And who are they? They are persons able to contribute substantially toward meeting professional goals for the years ahead. And so, from the vantage point of the present, let's look ahead at professional goals. As forecasting, this is a tricky assignment. But forecasting is the commonest human activity. Forecasting professional goals is a special obligation of students and their schools.

Standing, then, in the 1980s, let's think about three forestry goals that appear to hold promise of excellence.

A Public Relations Goal

One goal is a workable compromise between classical forestry rules and deference to public opinion in forest resource management.

From the founding of forestry in America until scarcely 40 years ago, foresters were guided by a set of clear rules brought over from western Europe. These rules may be grouped into four major doctrines. The doctrine of timber primacy put wood ahead of all other forest resources as a commodity forever essential and without substitutes. The doctrine of sustained yield drew an analogy between the sustaining of timber flow and the sustaining of human life. The doctrine of the long run decried selfish, short-sighted interests such as those of private enterprise, notably small enterprise. Look to the past, it said; the future should be like the past. The doctrine of absolute standards taught that the forest has its own ends and its means for reaching them. The person who understands these ends and means is the forester. The general public is not to be trusted.

After the Second World War, forestry's classical teachings became seriously undermined. The miners were "conservationists," "preservationists," "environmentalists," and other vocal groups that rejected the thought that the forester knows best and substituted the thought that forest management is too important to be left to the forester at all.

A Multiple-Use Goal

A second goal that appears to hold promise of forestry excellence is integrated forest management: "multiple-use" forestry. Multiple use is nothing new. It has long been a professional goal, its principal publicist being our Federal Forest Service. Yet the goal has not been attained. Indeed, just what the goal is has become less and less clear with the passing decades. What has become more and more clear is that multiple use is a perplexing bundle of problems. Here, for illustration, are three of those problems, the resolution of which is a prime essential for forestry excellence:

a. A cultural problem. Europeans, who are accustomed to making do with short resource supplies, fall easily into step with multiple use. For the most part, they see nothing outlandish about harvesting timber from a recreation forest, and view cutover forest land as no more a blot on the landscape than a cutover wheat field. In the United States, our culture has grown up amid resource abundance, and we have been taught to think that timber cutting spoils recreation ground. We want a lot of untrampled "wilderness" and believe we can afford it. Can we?

b. A technical problem. Management consists of understanding what the alternative courses of action are and choosing the best. Multiple-use management is no exception: Managers choose the best combination of wood, water, continued on page 20
Excellence in the Forest Service

by Bruce Courtright

Today's organizations are using the word "excellence" with increasing frequency as they look to the future and describe their goals and visions. Popularized by Tom Peters and Bob Waterman in the hugely successful book *In Search of Excellence*, the term has come to represent a highly desirable state of achievement and well-being in organizations.

The Forest Service is certainly among those organizations seeking excellence in 1984, and is continuing to undergo a self-appraisal in order to determine the best approaches for achieving the excellent state envisioned by its leaders. In this article we wish to share some of the things the Forest Service has done in the past that have made it a strong organization today, and some of the things it envisions for its future.

First, a look to our history. The Forest Service is an organization rich in tradition, imbued throughout the years with pride in professionalism and an ethic of responsiveness to public needs. People who come to work for the Forest Service traditionally have done so out of a genuine interest in the mission of the organization, and this interest is evidenced by quality of performance. Management consultant Kenneth Gold, formerly with the U.S. Office of Personnel Management (OPM), selected the Forest Service as one of five public sector organizations to study in an analysis of successful organizations that he conducted for OPM's Work force Effectiveness Division with the assistance of Penn State University. In a recent article published in the *Public Administration Review*, Mr. Gold cites the feeling of "specialness" expressed by Forest Service officials as a key to the organization's success and professionalism. He proposes that this special quality comes both from the nature of the organization's mission and the fact that it is "very much a career organization." In other words, employees feel good about the kind of work their organization does, and they usually enter the work force with expectations to stay with the outfit throughout their careers. As Mr. Gold says, "There clearly exists a high esprit de corps, which is punctuated by the fact that the leadership of the agency had traditionally come from within the ranks, and theoretically afforded everyone the opportunity to one day become Chief."

Coming out of this kind of strong tradition and shared values, how is the Forest Service prepared to meet the challenges of the eighties? None would deny that we live in a time of change. While the organizations cited by Peters and Waterman as "excellent" all possess clearly understood and shared organizational values, they also have the capacity to manage change in their value systems in order to deal with a changing environment and changing work demands. They also share a particular set of characteristics that seem to help them survive and indeed flourish throughout changing times.

I decided to use Peters and Waterman's set of eight "excellent" characteristics as a yardstick by which to measure the Forest Service in its own "search for excellence." While I see the eight traits only as a yardstick and not as an infallible prescription for success, I feel that they provide us a valuable tool for making an assessment of our own strengths and weaknesses as we face the future. What follows is a summary assessment of where the Forest Service stands in relation to the eight traits based on written input from a cross-section of agency managers and employees and on the personal observations of the author.

1. A Bias for Action. Peters and Waterman suggest that an attitude of "Do it, fix it, try it" results in high innovativeness in an organization. The Forest Service, with its very decentralized organizational structure, has always rewarded managers that take the right risk, although risk-taking must be balanced against organizational values. Employees and managers would like to see even greater use of this philosophy.

2. Close to the Customer. This trait focuses on reality, service, and reliability, which reflects a way of life for Forest Service employees. Programs such as "Host," which advocates treating Forest visitors as guests, instill a strong, consciousness of customer awareness.

3. Autonomy and Entrepreneurship. This trait describes support for individual initiative and risk-taking. It is seen by many Forest Service managers as an area where we must work harder. Managers are often told to take well-calculated risks, yet we have a heritage of attention to quality and correctness. Frequently, our traditional values conflict with needs to search for new methods and more flexible standards.
4. Productivity through People. The Forest Service works hard to retain its feeling of being a “family” in these times of personnel cuts and emphasis on productivity. A complication the forest Service now faces, however, is the changing composition of its work force. Forest Service employees have traditionally come from very similar backgrounds and educations, but recently our work force is becoming more diverse, increasing the possibilities for value clashes and conflict. Our current “productivity through people” challenge is to maximize use of our diverse strengths and fully integrate all our people into the Forest Service family.

5. Hands on Value Driven. This characteristic includes high involvement by key leaders in decisions regarding core organizational functions and decisions made consistent with known organizational values. I find the Forest Service working hard to maximize involvement of all levels as planning processes become more complex and demanding.

6. Stick to the Knitting. In other words, concentrate on what you’re good at. The Forest Service has always been well focused on its core programs.

7. Simple Form Lean Staff. Peters and Waterman suggest that big is not necessarily beautiful at the headquarters level. The Forest Service is critically evaluating ideas to lose any excess “organizational fat,” but this is proving to be a challenge. Reducing staff and maintaining positive morale among staff is difficult.

8. Simultaneous Loose-tight Properties. This trait refers to autonomy at the lowest levels, but with core organizational values held central. The Forest Service has fit this model well with unrelenting standards for quality and yet with freedom for both time and line and staff to experiment as long as those standards are met. The organization is currently challenged to weigh the benefits of possible personnel savings through centralizing some functions against these important values.

Overall, the Forest Service has a lot going for it in terms of its strong past and organizational values that support excellence. However, there are definitely some challenges facing the organization as it moves into the future. There are some areas in which its traditional values may actually restrain it from making all the changes needed to fully meet those challenges.

Futurists project a vision of dramatically changing personal values, shifts in population, new conceptions of world and national responsibilities, and a growth of information technology that staggers the imagination. The Forest Service will face changes that will challenge its core values, mission, and strategies in the next 10 years.

Knowing that this reality is at the organizational doorstep led Forest Service Chief Max Petersen to challenge his key line and staff managers to articulate their visions of the future. We felt that this vision, shared by Regional Forester, Zane Smith, is particularly illuminating and probably representative of what most Forest Service key managers would share as their vision of the future.

"VISION OF THE FOREST SERVICE – 1995"

"The Forest Service of 1995, in response to new and greater demands on the resources, dramatic advances in technology and major shifts in population and political strengths is an organization that is “lean and muscular,” capable of moving fast, recognizing and taking advantage of opportunities. The organization will be able to periodically and temporarily restructure to allocate critical resources where they will achieve the best results. The organization will have become more decentralized, and less hierarchical, with more of the decisionmaking responsibilities closer to the ground. The Forest Service will retain professional leadership in multiple resource management and technical forestry expertise. Through new technology, the organization will process information much more quickly and efficiently in all directions. This will allow new ways of doing business that result from research being transferred quickly for ground-truthing and once tested, assimilated more quickly into daily business.

"Due to a recognition of Regional diversities, the Regional Forester will serve more as the Chief’s Representative guiding the Region and handling important political and information contacts. The Forest Supervisors will assume greater responsibility for consistency between the Forests. There will be less differentiation between the present Research, National Forest Administration, and State and Private activities of the Service. These missions will integrate over time, as will the missions of different agencies now doing similar jobs. The “doing” jobs now accomplished in the Regional Forester’s support staff (the Regional Office) will become less distinct as an organizational layer. It will be much smaller and responsible for such tasks as strategic planning (RPA, LMP), Budgeting, Appeals, etc. The core field work force will be based upon the need for continuity and stability. This will necessitate a core work force which may be less mobile. Other more mobile groups of employees will be used, similar to contractors or consultants, for recurring tasks. The work force will be culturally diverse and probably multi-lingual. What are considered minorities by 1983 standards will no longer be considered minorities either in the work force nor in most local communities. These groups will be well represented
throughout the organization and well represented in positions of responsibility."

In Zane's vision of the future we see a high correlation of values with those ascribed to the "excellent" companies. To reach this future the Forest Service must embark on a journey that could have many pitfalls. Some innovative steps are now being taken which we feel will chart our course to the future and help remove the roadblocks.

First of all, the management climate at the very top of the organization is supportive of the kinds of values and techniques that will carry us into an "excellent" future.

There is a definite support of new ideas and methods. High value is placed on reducing the costs of doing business while at the same time respecting the organizational heritage of high quality service. "Sacred cows" are open to view and may be challenged from a pragmatic standpoint that meshes the older organizational values of conservation with a willingness to take risk.

When sitting in on a Chief and Staff decision meeting, one is struck by the easy informality based on years of working together in this organization and also by the pragmatic search for solutions to knotty problems. Managerial maturity is evident, yet the challenges of change are also present.

Some of the strategies that the Forest Service is using to insure continued excellence are:

1. A system of Productivity Improvement Teams (PITs) have been commissioned by the Chief. Their objective is to reduce the cost of doing business while at the same time maintaining an acceptable standard of quality. Significant features of the PITs are: A. A fast paced orientation meeting for the teams which includes training in new methods of systems analysis, strategies for accelerating creativity and contact with key organization members who have insights into assigned problems. B. The personal support of the Chief and his willingness to support changes in the standard way of achieving productivity. This is coupled with clear autonomy for the chosen teams and free access to all members of the Forest Service as resources. Recommendations made by the teams over the past 2 years could produce savings of $92.5 million annually if fully implemented.

2. Another strategy for promoting excellence is the shift away from subjective evaluation of line managers to objective measurement based on unit cost trends. The Associate Chief of the Forest Service personally meets with all Field line officers and discusses long-range trends of program costs. These discussions set the framework for the line managers' yearly evaluations and can significantly influence their merit pay. This top level attention on cost concerns is passed down to all layers of the organization.

3. As evidenced by the scenario of the future depicted previously, key organization managers have been encouraged to create and communicate their visions of the future for both their units and the Forest Service as a whole. This is helping provide a keener focus for long-range planning and hopefully will lead to managers doing a more effective job of meeting the needs of the organization and its people.

4. The introduction of new technology may prove to be a major factor in the organization's efforts to maintain and improve excellence in a time when funds are growing short and less staff is available to accomplish expanding goals. One thrust is a major conversion of the Forest Service to an integrated information processing system. The intent of this system is to provide the optimum quality of information to Forest Service employees. This system should maximize information sharing and increase the capabilities of all employees.

5. The Forest Service has a history of highly decentralized training in all field units. The guiding philosophy has been that the local manager has the best insights into both training needs and methodologies. Some key examples of training programs that will support the excellence mode of operation are:

A. Changing Roles workshops and Civil Rights workshops - To better integrate women and minorities into the changing Forest Service work force.

B. Facilitator training - To expand the resources available to Forest Service managers in planning, decisionmaking, and problem solving.

C. Executive development - Which focuses on key managers in order to expand their understanding of human behavior, stress management, personal growth, and public resource management.

6. One of the key areas discussed in most current literature is the need to develop stronger, more cohesive management teams. The Forest Service is now spending energy in team building. Applications range from a workshop designed to accelerate the transition process of new managers to comprehensive team building designs which help work groups with communication improvement, role clarification, problem solving, and leadership strategies.

7. The quality of worklife plays an important role in the organization of the future. Women and men now and in years to come will be more concerned with the quality of their working life which includes job freedom, level of responsibility, ability to grow, quality of management, and an environment of supportive, open relationships. The Forest Service has conducted several pilot Quality of Worklife projects and is in the process of testing these designs for increased use at all levels by the
organization.

The Forest Service may not have all of the answers as to how to become an “Excellent” organization as described by Peters and Waterman. However, the top management of the Forest Service recognizes the need to communicate a clear vision of excellence to all Forest Service managers. A major challenge to the organization will be its ability to create a climate in which the seeds of excellence can grow to maturity. If one message clearly resonates from recent literature it is that we Americans have done well on instilling the harder management values of planning, control, and quantitative decision making in our managers, but have not always been able to merge these with the softer values of employee motivation, work spirit, organizational development, and human potential. When Forest Service managers can successfully bring all these components into concert, they will have succeeded in reaching their goal of true excellence.

Computers ... con’t. from pg. 18

help solve a myriad of complex forestry problems. These modern electronic wizards allow us to “see” the forest as never seen before. They allow us to extend the frontier of knowledge in remote sensing, inventory analysis, management/planning optimization, and growth and yield modelling of virgin or established forests. The abilities of massive data storage, retrieval, and analysis by computers helps foresters to better manage the tens of millions of forested acres around the World. We, as foresters, are stewards of valuable natural resources—land, soil, water, wildlife, and forests. As such, we need all the tools modern science can provide to help us become effective, knowledgeable, and creative foresters. One advertisement by a large industrial firm says “the future is now,” and another says “we can’t wait!” Another saying, one from forestry, is “We don’t plant trees for this generation---we plant them for the future generations.” All of these sayings are true! We need to make the best decisions today for the benefit of the future generations. We need the ability to see the future, as clearly as possible, to aid in these complex decisions concerning forests and all natural resources. The modern computer is our eye to the future and our link with knowledge from the past. Just remember though: the computer may act as our eye, but not our brain. We are the decision-makers, not the computer.

Toughness ... con’t. from pg. 6

foresters will be glad that they did not compromise themselves by merely hoping for better times but took pride in their own pursuit of excellence.

Nowhere can I find a better nor older statement about the pursuit of excellence in the face of adversity than this one written around 700 BC by Hesoid. “Badness you can get easily, in quantity; the road is smooth, and it lies close by. But in front of excellence the immortal gods have put sweat, and long and steep is the way to it; and rough at first. But when you come to the top, then it is easy, even though it is hard.”

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AMES FORESTER
GERMAN FORESTRY — A MODEL FOR US?

by Gene Hertel

American forestry is always somewhat German. Even in the eighties, as we strive to better define the role of forest resources in the United States, the tradition of Old World practices remains with us.

Early American forestry schools, the Biltmore School and the New York State College of Forestry, were headed by men trained in forestry in Germany. Later schools have continued to teach German forestry practices to help equip students to manage diverse forest properties.

American foresters retain an active interest in German forests and forestry because of this traditional education. I am no exception. In 1979 and in 1983, I was able to visit the Black Forest area of West Germany, and to spend brief times with foresters employed by the state of Baden-Wurtemberg. These visits led to some personal impressions and insights concerning current forest practices in Germany and how they compare with our own.

I am indebted to Dr. Hans G. Enghardt, Baden-Wurtemberg state forestry department, Karlsruhe, for much of the forestry information. Baden-Wurtemberg forest practices may differ from those elsewhere in Germany, but I believe the approach to forest policy and practice are typically German.

Baden-Wurtemberg contains about 3.2 million acres of forest or 37 percent of the state’s total land area. The Federal Republic of (West) Germany has 29 percent of the total land area in forests.

Twenty-four percent of the Baden-Wurtemberg forest is state-owned, 41 percent owned by communities, and 35 percent is in private hands. Small private and farm forests comprise two-thirds of the privately owned forest land. Federal ownership in Baden-Wurtemberg is less than 1 percent.

Tree species composition of the forest is determined by site, elevation above sea level, and aspect. All tree species important to central Europe are found in Baden-Wurtemberg with the major ones being represented as follows: Norway spruce, 44 percent; Scotch pine and European larch, 11 percent; European white fir, 10 percent; European beech, 20 percent; oaks, 7 percent; other broadleaved species, 8 percent.

Interestingly, Douglas fir — used as a commercial species to a limited extent for over 100 years — is playing an increasingly important role today. In some forestry districts, it exceeds 5 percent of the forest acreage. Other exotics from North America which have been planted are Sitka spruce, eastern white pine, northern red oak, black walnut, and tulip poplar.

Management of all forest lands has been regulated by law for more than a century in Baden-Wurtemberg. Multiple use has been in the foreground for many years. State government responsibilities include administration and management of state forests, technical forest management and operation of forest ranger units in municipal and other corporate forests, providing technical help to small private forest owners, participation in planning at all levels and general authority for forest protection.

A forestry department in the Ministry of Food, Agriculture, and Environment administers the state’s forestry program. The state is divided into four administrative regions and further divided into about 200 forest districts. Each forest district is administered by an academically trained forest supervisor who is the authority for all forestry matters in the district. Each forest district is further divided into several ranger districts, averaging 2,000 acres in size. The forest ranger in charge of these management and work units typically has two years of ranger school and two to three years of practical training. A less responsible career position on small ranger districts in municipal and private forests requires only three years of practical work and six months in a technical forestry school.

Forest management in Germany might be characterized as “conservative.” Dense stands and long rotations are the rule. In Baden-Wurtemberg, rotation ages for the major species are: spruce, 120-130; pine, 130-200; fir, 130-140; Douglas fir, 80-120; beech, 130; other hardwoods, 120+. Current guidelines for major sites do not permit the establishment of pure, one species stands.

The diversity of sites, ownerships, and management goals dictates a variety of management techniques. The management considerations in the three specific
areas of the Baden-Baden city forest, the Margen forest district, the “Wilder See” nature reserve/protection forest may best illustrate these techniques.

The beauty of the surrounding landscape is considered a major asset of Baden-Baden. The forests are an integral part of this spa city and are managed both for revenue and to enhance the beauty of the surrounding valley. Every effort is being made to obtain the highest possible return and at the same time consider fully the other demands.

A shelterwood harvest observed in the Baden-Baden forest is being made to convert an old high beech forest to a mixed forest. The beech is felled beginning on the northeast side of the stand, away from the prevailing southwest winds, in an effort to prevent windthrow of the remaining stand. Regeneration is being accomplished through natural seeding of fir, beech, and Scotch pine and by planting other species. The desired composition is fir, Norway spruce, some Douglas fir, Scotch pine, and beech. In general, a mixture with 80 percent conifers and 20 percent beech is the goal.

The state forest district of St. Margen serves to illustrate management on a diversified area. The district has about 22,000 acres of forest area with seven ranger districts and is 22 percent state-owned, 11 percent city forest, and 67 percent privately owned woodland. Predominant commercial species are Norway spruce, beech, and European fir.

The management aim is a high-yield multi-storied forest with large trees as the final crop. The resulting stand is resistant to damage due to natural hazards of snow and wind. Past experience has led to a silvicultural system of natural regeneration taking place over a period of 25 to 40 years. Fir is the first species to be established after the first cautious opening in the canopy. Beech is next, after more light reaches the forest floor. Spruce is last and it can be interplanted if necessary. Resulting stands are less susceptible to natural hazards and are aesthetically pleasing because of their diversity.

Woodlands of this district are important to the farms. At higher elevations about half of the farm income is derived from the forest. Upon request, forest service personnel assist private owners in the planning of roads, timber sales, and with silvicultural management. State supervision of private forests consists of monitoring timely reforestation and unauthorized removal of forest for building or conversion to farmland.

There are four landowner cooperatives in the district with 203 members who own 65 percent of the private woodlands. Marketing of cut timber, road construction and maintenance, procurement and use of equipment, and timber harvesting are the primary objectives of the cooperative.

The “Wilder See,” a small glacial lake and the 210 acres around it, is an area, dedicated in 1911, as the first nature reserve in southwestern Germany. At that time, it was removed from regular forest management. The features of the area to be preserved are its vegetation of mixed stands of fir, spruce and beech, pure natural stands of spruce, spruce stands planted after a forest fire in 1800, and a high peat bog. Timber cutting or encroachments of any kind are prohibited. Ironically, the ever-increasing tourism is damaging the very features being singled out for protection.

German forests provide many benefits in a way that each user seems satisfied. People obviously accept most of the forest management practices and the government regulations necessary to maintain the forests. At the same time, they have an obvious pride in the forest as their own. This may arise from the long history of regulation or from the large number of people depending upon the forest for recreation or employment. Exclusive use by one group is not tenable when so many seek to enjoy the forest.

Walking is permitted by law in any forest in Germany, whether private or public. This provision opens essentially all forest areas to recreational walking or hiking. All forest roads on public lands are restricted to quiet uses and are off-limits to private automobiles, motorcycles, and snowmobiles. They are open for hiking, biking, and in some cases, for horseback riding.

Forest hikers are very protective of the quiet, peaceful experience and have been known to use walking sticks to strike official cars whose operators are thought to be driving too fast or being otherwise inconsiderate. Citizens commonly report discourteous drivers to authorities.

Forest roads are numbered and well marked to direct recreational users to points of interest and to assist them in getting from town to town. People of divergent interests use the forest roads. It is not uncommon to see women in dress shoes and fur coats walking the same road with others wearing alpine clothing and sturdy boots.

Hunting in Germany is not easily classified as recreation, forest management or game management. This pursuit is not an avail-
able option to much of the population. The state forestry administration regulates the deer harvest, for example, on all forest land. Deer inventories are made each year and a plan of animal harvest is required. Forest service employees do much of the hunting or assist special permit hunters including United States military personnel.

Deer are a major problem in the regeneration of forest stands. If red deer and roe deer populations are high, it is nearly impossible to establish new seedlings, either by natural seeding or planting. Fencing reseeding areas or reducing the deer herd offer the only solutions.

Reduction of deer populations is accomplished by permitting hunting of any-sex animals in forest establishment areas. In other areas, hunting is restricted to maintain a healthy herd. Large red deer stags are also protected in the heavily hunted areas, since they will migrate to the designated deer areas.

It was our good fortune to visit a forest ranger at his forest house in the northern Black Forest. He has worked for 30 years on the district.

Forester and forest ranger positions are highly sought as a career goal in Germany and long job tenure is common. One has the impression that the stability and respect enjoyed by the German forester is a product of the in-depth local knowledge gained over many years.

The ranger we visited was respected as a hunter as well. He was one of only three or four in the Black Forest to successfully call red deer stags to the gun. This is accomplished by "bugling," with the aid of a large sea shell, causing local stags to appear to defend their territory.

Game animals are considered a crop of the land and the meat is common fare on restaurant menus in Germany. We found venison, wild boar, and hare being served throughout the Black Forest and the Alps.

Conversations with west German residents made me aware of a personal concern for the forest felt by the general population. In one instance, I suggested the acid rain problem may be overstated by foresters. The person to whom I made the comment was quick to say this is a serious problem threatening all the forests. Another gentleman, who lived in a small town near Frankfurt, expressed alarm at the impending loss of forest and felt the loss of the forest indicates such poor environmental conditions that man himself cannot survive.

Strong feelings toward the forest are typical. They indicate clearly the personal feeling of the German people toward their forests. It is somewhat surprising in view of this concern that the harvesting of forest products is accepted as a logical part of forest management. The patterns of group-selection or small clear-cuts are very noticeable features of the landscape. They do not seem to detract from the public appreciation of the forest. Only in special watershed areas at higher elevations is regeneration accomplished by selection methods, which do not exhibit this "patchwork" pattern.

German and American forests and forestry issues are very similar in a biological sense. One would expect this anywhere in the world. The differences occur in the public policy and administrative methods employed to manage and use the forest resources. The amount of forest available for each resident is an indicator of the recreational pressure placed upon the resource. The German system of restricting forest roads to nonmotorized vehicles assures a good recreational experience for a great many people.

In our modern world all cannot be peaceful, however. I was startled one quiet sunny morning along a Black Forest road to have the stillness shattered by a low flying jet fighter plane. The noise subsided, but the inner peace never quite returned. The experience may explain the furvor with which the German hikers insist upon the quietest use possible on forest roads.

There are no opportunities in Germany to create or experience vast wild areas of forest land. Everyone is close to the forest in their daily comings and goings. This has resulted in closely regulated land use and forest management policies under close citizen scrutiny. German foresters respond to public wishes, to be sure, but the long tradition of government regulation of private land and the respected position of the German forester in forest management skills has resulted in a widely accepted and stable forest management policy.

As we strive for the excellence in forestry in theeighties and beyond, we can profit by continuing to observe the German model. Intensive management, stable land use allocations, and comprehensive planning to integrate forest resource policy with other goals of society are important elements of that model.

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Gene Hertel is state forester with the Iowa Conservation Commission. He is a 1950 graduate of Iowa State University, past president - National Association of State Foresters, member and past president - Iowa chapters of the Society of American Foresters and the Soil Conservation Society of America.
One are the days of "male" and "female" occupations. Women are breaking down the barriers in many occupations once considered male territory only, such as forestry and engineering. This trend will hopefully increase through the Eighties as women become more self confident. I look at Forestry as the use of a natural resource for the benefit of man, but also having a strong conservation objective. Thus Forestry in the Eighties offers a variety of jobs to anybody indirectly wanting to help their fellow man, and willing to face new challenges.

Forestry has long been imagined as an outdoor, all-weather job that involves a lot of work needing physical strength. At one stage in the early 1900's this may have been true, but with modern technology, machinery, and computers, this is far from the case today. Granted, there are still times when strength is necessary to do a particular job, but it is certainly not the norm. If a person so chooses, he or she may apply for a position that will be outdoors and all-weather.

The outdoor, all-weather aspect has been one reason for women not opting for Forestry, an unfounded reason as already mentioned. Other reasons may be that a woman did not take mathematics and sciences in high school; or feels that she can't tackle math and science, so gives up before even starting, or the lacks self confidence to compete for a position working with, and surrounded by, men.

The major stumbling block for women in Forestry is that many of their male counterparts do not take a woman seriously. This tends to be especially true in management where a woman holds a supervisory position over older men. The men are unwilling to acknowledge the woman as their boss. But the opportunities far outweigh the stumbling blocks, which should be viewed as part of the challenge of entering a male-dominated field. The opportunities in Forestry are there wherever you want to go, be it within the USA or internationally, if you are willing to work hard and cover most interest areas in some way.

Being in Forestry can be a true test of patience for a woman, because the men's attitudes towards women need to be broken down and changed, which is a slow process.

Some attitudes towards women in Forestry are:
- chauvanism, which is the basis for most of the following attitudes
- she is an outdoor tomboy if she is interested in Forestry or any male-dominated field.
- women are only in a male-dominated field to find a husband.
- a woman will get married and/or pregnant and stop working or move.
- a woman can't hold her own, thus is not an effective supervisor.
- a woman will not want to pull-
- Do not always depend on male superiors for job advancement opportunities; create your own.
- Some men are very willing to help, but sometimes in a way that makes it difficult to do things on your own, or they don't let you do things on your own at all.
- Men will try to put women down, thus a woman's mistakes are noticed a lot faster than a man's.
- People will be more critical towards a woman, so avoid using feeble feminine excuses, otherwise valuable ground may be lost.
- You can still be feminine, and enjoy cooking and sewing, etc. But when there is work to be done, do it.
- There is a problem of being "tuned out" by men in gatherings and meetings.
- There is a problem of not getting credit when it is due.
- Do not let men push you around.
- Learn to turn obstacles into opportunities, and tokenism into an advantage.
- Learn to handle men without bruising their egos; not always possible.
- Have determination, don't give up, keep trying.
- A woman has a big responsibility, in that the attitude towards all women in Forestry will depend on how she shapes up and does the job.

With the job situation as it is presently, international opportunities be they Peace Corps, exchange programs or otherwise, must not be overlooked. Interna-
tional experience can be extremely valuable, not only in Forestry, but in human relations and learning new languages. A woman, first and foremost, must realize before leaving the USA that there will be a cultural difference between home and the new assignment. Thus there will be a difference in how a woman is regarded and accepted in the new location. The chauvinism will probably be more pronounced and a woman may need the help of a male superior to get males and general labor beneath her to heed her. Don't be discouraged, ask questions boldly, be prepared to adjust. You should manage well. You will also find that you tend to get away with quite a bit due to being a foreigner. If you make a habit of it, though, you will just put your supervisor's back up and then you will run into lots of problems. Stand your ground, don't let yourself be trodden on, and you will earn respect as an equal.

A few examples from my experiences both in the USA and South Africa: 1) A group of us were on a field trip for 3 days, I being the only woman. Three of us took turns cooking, my turn being the first night. On the second night one of the men approached me at 6 pm asking when supper was, I said that I did not know since I was not cooking. They also demanded coffee as though I was a maid and it was my duty to make it. I told them nicely that they could make their own since I was not drinking any. They were surprised on both accounts and realized that I was not automatically cook and tea-girl, and would not be pushed around.

2) At a field day put on by the Directorate of Forestry for private timber growers many of the private growers thought that I was just along for a day out of the office and the free lunch and knew little about Forestry. However when I asked some intelligent and relevant questions, and once corrected one of the speakers on a point, a new attitude developed toward me.

3) Once labor and people beneath me realize that I know my field and am their boss I find that I get more and sometimes better work out of them than some of my male contemporaries. I found that patience and careful explaining of things in simple terms may be necessary.

4) Labor, at first, thought that I couldn't always do the work that I asked of my crew. But I knew I would get their respect if I did some of the work and didn't just supervise. I worked with my labor doing coppice reduction in eucalyptus, clearing slash, painting and measuring trees, and in the nursery. If you get your hands dirty you are not looked on as a lazy boss.

5) People find it quite amazing that I am qualified in Forestry, do the field work etc., but still enjoy, and am fairly good at, sewing, knitting, and cooking.

6) The men are unwilling to let me do field work and go out on my own, if it involves any travelling. They also don't let me carry my own equipment if they are not carrying much, or do hard work, such as soil augering, when I am with them, because it will make them look bad if word gets back to the station.

7) Being the only professional woman in the field in South Africa, I am invited to attend all sorts of congresses, meetings, and field days locally and otherwise, so people can see "what" I am. Most are interesting and give me a chance to meet valuable contacts in all sectors of Forestry.

8) I was being given work that a male contemporary found dull, boring and did not want to do. When I found that he was getting the credit I made it clear that I had done the work and put in a complaint. As a result of this action that problem was solved. However, this is a continuing problem. For instance: I did all the organization and made the catering ar-

References:
"Lumberjill Marietjie saw the light." Pretoria News, Pretoria, June 26, 1982

Marietjie Burger graduated from ISU in May 1981, with a BS degree in Forestry — Natural Resource Management. Marietjie has a diverse background of Forestry experience. While attending ISU she was a research assistant for the Phyto-Engineering unit and worked seasonally for the US Forest Service on the Fremont National Forest, Paisley, Oregon. Before arriving at her current job at Saasveld Research Center, George, Cape, Marietjie spent 18 months working for the Natal Forest Research Center, Pietermaritzburg, Natal.
Foresters, like other professionals, are using computers more and more frequently in their daily decision-making routine. Modern computers are lighter, more powerful and offer more tailor-made means to solve forestry-related problems than they did only a few years ago. When Drs. Atanasoff and Berry invented the first electronic digital computer here at Iowa State University in 1939, they probably had no idea of the sweeping impact this tool would have on mankind. For sure, they did not envision “dirt foresters” or “timber beasts” using computers to process inventory data, or project the growth and development of mixed hardwood stands, or determine the cutting budget for a one million acre National Forest for the next ten years or more.

The purpose of this article is twofold. First, it will address the relationship between computers and modern forestry. Second, it will explore some of the many applications of computers to forestry research/administration, extension, and education.

The modern computer, whether a mainframe unit or a personal computer, is used to promote excellence now and into the future by acting as our collective eye, allowing us to see the forest as never seen before through computer interpreted and enhanced imagery. It is our modern slide-rule, allowing us to compute optimum production schedules of sawtimber, pulpwood and veneer logs for a large industrial forest company. Also, the computer is our modern notepad and spreadsheet helping us to create an environmental impact statement (EIS) for proposed wilderness designation of 30,000 acres on the Alleghany National Forest or produce a series of tables each depicting the impacts of increased labor costs on the total cost of a reforestation project in Nepal.

Computers permeate the fabric of forestry. They are tools used effectively and creatively in research, education, extension, and for personal purposes. Some people, including foresters, fear computers. Ogden Nash in "Wilderness and The American Mind" said that early man feared the forests because they were untamed, uncontrollable, and filled with beasts. But, as mankind advanced socially, politically, economically and intellectually, wilderness was thought of in an opposite and enlightened manner. Wilderness became in our mind’s eye something sublime, beautiful and pristine.

We offer these words to provide an analogy. In this case, a concept or physical entity- the computer- first is seen in one manner (almost exclusively) as a tool to be feared, but over time, that same concept or physical entity is seen and used in an entirely different way. We submit that computers can be and are currently seen both as something to be feared and something of beauty. It may be hard to think of computers as objects of beauty, but to the forest manager who just ran a computer program that in seconds did what would have taken years of meticulous and boring calculations to do by hand, it is beautiful (or at least kind of cute). The real beauty is in allowing the forester to better use knowledge and understanding to aid in making decisions about complex and expensive forestry operations.

You may fear computers or know someone who does. We are sure that computers can be and are sometimes wrongly applied to solve forestry problems. This, however, is caused by a poor human choice, not the computer. The computer is a dumb, dedicated slave. It is a tool which speeds, enhances, extends and beautifies the forester’s decision-making routine.

Using the computer should not cause foresters to forget or ignore the basic biologic/ecologic and economic principles used daily in solving forestry problems or planning forestry activities. Foresters must continue to respect and at times favor marshes, boggy areas, rocky snow covered peaks and mountain sheep. The point here is that foresters must simultaneously consider a multitude of resources, people demands and resource limitations. This is an extremely difficult and time consuming job. If we purposefully ignore or shun the use of any tool which can make us better foresters, then we give up part of our voice in the management of the forest resources.

Our professional strength in managing the vast forest lands for the future lies in our understanding of the complex interactions between mankind and this spaceship Earth. Aldo Leopold once said, "Education, I fear, is learning to see one thing by going blind to another." We, as foresters, simply cannot let this happen. We must...
use our talents, creativity, and modern tools, like the computer, to become better managers of the forestlands and more attuned to peoples wants and needs.

Now let us consider the application of computers to forestry research/administration, extension, and education.

Large mainframe and mini-computers are used daily by research foresters throughout the world to help solve forestry problems. Vast quantities of information and data have to be input, filed, processed and printed rapidly to be of use in the scientific research process. Currently, the US Forest Service is assembling, what some have called, the second largest computer system in the world. This computer system will link the individual National Forest Districts with the Supervisors office, the Regional office, the Washington office, and the various research stations nation-wide. The Forest Level Information Processing System (FLIPS) is the new computer system that will provide the link between the scores of Ranger Districts in a Region, and among the Regions, nationwide.

Largely as a result of the Renewable Resources Planning Act (RPA) of 1974, each National Forest must develop a comprehensive forest management plan by 1985. Further, each Region must develop a coordinated and comprehensive regional forest management plan by the same time. These plans, once finished, will be implemented, revised and updated in accordance with RPA and the National Forest Management Act (NFMA) of 1976. This is a massive undertaking, unprecedented in the area of natural resources management. The Forest Service, in order to accomplish its assigned tasks, must rely on computers.

Researchers and administrators in the Forest Service will use many other computers and computer software to analyze, and summarize billions of pieces of information and data. The forest plans will be developed with the aid of FORPLAN, which stands for FOREst PLANning. This system is built around a very large linear programming package. Other Forest Service computer software programs include; Tammu (Timber Assessment Market Model for North American markets for softwood lumber, plywood, and stumpage), Timber RAM (Timber Resource Allocation Model), TMIS (Timber Management Information System), and RIM (Recreation Information Management system).

The computer is being used to enhance learning of basic forestry principles, skills, and decision-making. Further, the hands-on experience that students are obtaining in the classroom and lab will give them a necessary and competitive edge in the forestry profession.

Like their public counterparts, Forest Industry uses large integrated computer systems. Perhaps the second oldest linear programing-based forest management planning model, and the most notable of the industrial systems is MAX-MILLION. It is probably safe to say that, without exception, all large private industrial forestry businesses use computers in their daily production and management operations and for long-run planning, budgeting, and control.

Nationwide, extension foresters are developing and adapting forestry software to micro-computers (also known as personal computers or PC's). Since one of the primary functions of extension foresters is technology transfer, it is appropriate for them to be actively involved in facilitating the marriage of modern forestry management concepts and personal computers. Most of the clients helped by extension foresters are non-industrial private woodland owners. This client group, with its myriad of management objectives, financial resources, and highly variable knowledge of forestry, needs the opportunity to obtain competent professional forestry help. Personal computers allow for more information and technology to be transferred rapidly from the relatively few extension foresters to the millions of non-industrial private woodland owners. In the private sector, consulting foresters are advertising computer-based services like forest inventories, growth and yield modelling, mapping of forest types, and forest investment analyses.

All forestry schools have a few "weird" faculty members who actually like to work with and be aided by computers. Sometimes, however, while listening to them, you may hear "...that ##!?!& machine ate my ??& Data". But, many computer programs have been written and brought into the classroom or lab to generate sample data from an inventory, identify wood samples, provide forest management information for a freshman level management-role playing exercise, provide soil expectation values for alternative timber investment opportunities, or optimize present net worth of a 500,000 acre forest subject to timber, water, wildlife, soil, and budget constraints over a fifty year period. In all, the computer is being used to enhance learning of basic forestry principles, skills and decision-making. Further, the hands-on experience that students are obtaining in the classroom and lab will give them a necessary and competitive edge in the forestry profession.

Computers are an important and necessary modern tool used by foresters, young and old, to continue on page 11
About 1922, an Iowa farm boy in the eighth grade decided to be a Forester. It took six years, 1927 to 1933 to earn his way to a degree in Forestry at Iowa State. The years passed and after a number of assignments I found myself a Forester in Riley Creek CCC camp, near Fifield, Wisconsin on the Park Falls Ranger District of the Chequamegon National Forest. This was cut-over, burned-over northern Wisconsin. The area looked like a gopher's eye view of a picked corn field. Tree planting of red pine and white spruce was in full swing.

The CCC Camp was well established at that time. There was a Forest Service guard station building on a slight knoll above the camp garages. This was the Forestry staffs quarters. Around this building area were planted and some natural white spruce and balsam seedlings.

The members of the staff took turns on weekend duty. Often my wife and two small sons came to spend Sunday with me. They would bring the croquet set and we would play on a course laid out up and down the knoll and around the little spruce trees. That was forty-five years ago.

The War took four years of my time and Riley Creek camp was closed. After the war I returned to become Paper Pulp Mill Superintendent for Flambeau Paper Company for the next thirty years. During that time I helped to move one Riley Creek barracks to a Boy Scout Camp by row boat across a lake. All that remains at the camp today is one big garage. The main road has moved over one half mile from the old camp. Over the years I visited the camp by car and by snowmobile. The little trees of 'A Long Time Ago' are now a forest.

This year was the 50th anniversary of the Chequamegon National Forest. That being the case they were given the honor of supplying the National Christmas Tree. And lo and behold the tree chosen by the National Park Service was one of those little trees we batted a croquet ball up against and around 'A Long Time Ago'. I was very pleased that I and five old friends of Riley Creek CCC days, were asked to cut this special tree with an old two man crosscut saw from the old camp, so it could grace the National Capitol lawn and thereafter become guard rail posts.

The furnishing of this tree became a Northwoods community project. The Chequamegon brought in a man from Michigan, who had 'packaged' a huge tree before, to supervise the job. The local Koshak Construction Company sent a big dragline crane to lower and load the tree. Flambeau Paper Company furnished a large bed truck and driver to deliver the tree to Washington, D. C. Local Lions Clubs sold special caps and buttons. A large crowd gathered in a light snowstorm for the cutting ceremony. Four TV station camera crews were there and at least two hundred local cameramen recorded the event. The local Forest Ranger with a party of fourteen escorted the tree on its four day, forty-five mile per hour trip through the snow. They saw it put in place and a local girl of the party sang
it a song which she wrote for the occasion.

The story of this tree is the story of Northern Wisconsin timberland recovery by natural reproduction and some planting. Fifty years ago in many places you could see across two or three miles of barren, scorched land. Now it is mostly solid timber. The new timber is mainly the transition species of poplar, white birch and balsam fir with only a scattering of the terminal majestic pines and hardwoods. Many transition stands are nearing maturity. If not harvested they will gradually change to more terminal stands. This will take another fifty to one hundred years. If harvested now they will return to another transition stand. Natural regeneration is rapid.

A little of me from ‘A Long Time Ago’ went to Washington with that National Christmas Tree. The time has been good to the land, to the trees and the people.

wildlife, range, recreation, and aesthetic outputs. But this is technically impossible, because we have only a murky idea how one line of activity affects another and what weight, or value, to attach to outcomes. Can you outline an optimal management regime for your friend’s woodlot? In what sense is it optimal?

c. A pedagogical problem. If forestry is an integrated system of people, trees, wildlife, and so on — and not just a series of events — then the forestry curriculum, too, can be expected to be integrated, and not just a series of courses. Inevitably, teachers are specialists, and specialists often are not good integrators. They enjoy “doing their own thing,” and indeed it is out of this joy that the excellence of their own performance arises. But they are scarcely the embodiment of multiple use. Have you learned to think of forestry as a system? Are you prepared to practice it as a system?

An Educational Goal

Thinking of forestry as a system reminds us that it is in fact a subsystem of larger systems including, in the last analysis, totality. Forestry has a geographic context, a historical context, a social context, and so forth. Each sort of context is the part of a larger system that lies outside the forestry subsystem.

An understanding of the context of things and an ability to see them in context are marks of the educated person. The educated forester not only grasps the principal ideas and techniques of the profession, but also has some appreciation for the origins of these ideas and techniques and some understanding of how ideas and techniques in general come into being.

A person’s education begins at birth and ends only at death. The formal “educational system” dominates the process for a little while. But the system cannot reasonably be expected to provide more than a fraction of the appreciation for context that an educated person must possess. Surely forestry school cannot be counted upon heavily. The best the school can do is imbue its students with a zeal for learning. Are you prepared, as an individual in pursuit of excellence, to continue your education on your own?

William A. Duerr was graduated 50 years ago from Iowa State College’s Horticulture Department with a major in forestry and a minor in botany, which in those days was the route to becoming an Ames Forester. He was 20 years in the Research Branch of the Forest Service, with time out to study economics at the University of Minnesota and at Harvard. During 30 years in the academic world, he saw 84 graduate students through their programs, served as forestry consultant to governments and firms in many parts of the world, and continued a writing career in which he has produced well over 100 books, bulletins, and journal articles in forest management and economics. His “Fundamentals of Forestry Economics” was a standard textbook for nearly two decades. He is senior editor of “Forest Resource Management,” the 1982 edition of which is the work of 34 authors. His most recent book, published in 1984, is a new text, “Forestry Economics As Problem Solving.” In his accompanying article, this former editor of the Ames Forester enlarges on thoughts he voiced in our annual in 1979.
Meet The
ISU Faculty
and Staff

Dr. George W. Thomson
Department Chairman

Dr. Thomson’s most memorable event is WW II, specifically being in England during the invasion and getting bombed (artillery fire "bombed" not a three-day leave "bomb"). The little free time Dr. Thomson has is usually spent doing household chores, but he also finds time for reading, travel, photography, and gardening. One thing he would like to change in this world is to have the people of different cultures exposed to each other, rather than labeling a person by the “government” he or she is associated with.

1943 BS Forestry/ISU
1947 MS Forest Management, Plant Physiology/ISU
1956 PhD Soils, Silviculture/ISU
1947 Joined the ISU Staff
1975 Became Department Chairman

Dr. Joedy P. Colletti
Assistant Professor of Forestry

Dr. Colletti and his wife (Sharon) have 1 child, Stacy, who is 11 years old, going on 50. When Joe (as he is affectionately called) isn’t teaching Forest Economics or Quantitative Analysis he can be found running on the sidewalks of Ames or sitting at home watching pesticide commercials and pondering the imponderable question, “Is it farther to Des Moines or by bus?” As a parting note, Joe feels that life should not be taken too seriously or you’ll begin to go bald.

1972 BS Forestry/Humbolt State Univ.
1974 MS Forestry/Univ. of Wisc.-Madison
1978 PhD Forest Economics/Univ. of Wisc.-Madison
1978 Joined the ISU Staff
Dr. David W. Countryman  
*Professor of Forestry*

Dr. Countryman enjoys most outdoor activities, especially hunting, fishing and F.A.S.I.F.E. (Forestry Annual Southern Iowa Fishing Expedition). Dr. Countryman and wife Roberta (Bobbi) have 2 children, William (15) and Michelle (12), who usually answer to "Hey You." His most memorable experience at ISU has been his relationship with graduate students. He advises all beginning foresters to develop as many skills as possible.

1966 BS Forest Management/ISU  
1968 MS Forest Management/ISU  
1973 PhD Forest Mgt. and Planning/Univ. of Michigan  
1975 Joined the ISU Staff

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Richard R. Faltonson  
*Greenhouse Manager*

Mr. Faltonson (Rich) received his Bachelor's degree in Horticulture from ISU in 1977. He conducts Propagation and Regeneration experiments in the greenhouse and is a guest speaker for many Forestry classes and labs. When not working in the greenhouse he enjoys running, x-country skiing, photography, home carpentry, and spending time with his wife Sue, and eleven year old daughter Rachel. Rich will always remember this past summer when he was sponsored by a grant from the Professional Scientific Council to tour the seedling nurseries of the N.W. (most unforgettable is the $150 tow bill he got when his car broke down).

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Dr. Richard B. Hall  
*Professor of Forestry*

Dr. Hall (Rick) likes to participate and attend athletic events, canoe, hike, fish, and jog(?). Dr. Hall has had several memorable experiences while at ISU, one enjoyable experience occurred when he was Advisor to the Forestry Club, SAF, and the Ag Honors program chairman all in the same year. A not so enjoyable experience was when he received the Most Beloved Teacher award in 1983. If he could change one thing in life it would be to put 30 hours in a day and 10 days in a week, with no more commitments.

1969 BS Forest Management/ISU  
1974 PhD Plant Breeding and Genetics/Univ. of Wisc.-Madison  
1974 Joined the ISU Staff
Dr. Elwood R. Hart
Associate Professor of Entomology

Dr. Hart (Woody) is a man with many hobbies, some of his favorite pastimes include riding motorcycles, gunsmithing, music (classical & progressive country), and reading (sci-fi, poetry, and history). He likes to try the "untried," for instance he would like to push the Big Red Button just to see what would happen (purely for scientific reasons of course).

1959 BA Biology/Cornell College
1972 PhD Entomology/Texas A & M
1974 Joined the ISU Staff

Reinee Hildebrandt
Teaching Assistant - Forestry Extension Ass't.

Ms. Hildebrandt has experienced several memorable situations while teaching Forest Recreation this past year, but they are not experiences she wants the world to know about. Reinee received her BS in Forest Recreation from ISU in 1980 and her M.S. from ISU in 1982. When she has time away from teaching, assisting the extension office, and working on her PhD she likes to jog, bicycle, travel, swim, go to movies, collect stamps, and attempt photography. If she ever finds the time she would like to learn taxidermy (due to bad experiences with squirrels). Her most memorable experiences at ISU have been meeting her husband Bill, and receiving the Most Beloved Teacher Award at this year's Game Banquet.

Thomas D. Hillson
Lab Technician/Research Ass't.

Tom Hillson acquired his BS and MS degrees in Botany from ISU in 1971 and 1976 respectively. His position involves conducting genetic research for the faculty and grad students. He looks forward to the day when he has unlimited funds to use on immunological research (actually he looks forward to the day he has unlimited funds for anything). He enjoys spending his free time with photography, his wife Glenda, and his 600 children (orchids). He advises beginning foresters not to look for the easy way through school because there's a lot to be learned in Forestry and if you don't learn it now you may never get a second chance.
Dr. Frederick S. Hopkins, Jr.
Professor of Forestry

Dr. Hopkins enjoys the wide open spaces, traveling with his wife Pat, and mountain climbing (less than 10% slope). His most memorable event occurred during the summer camp of 1968. This camp was held in Montana and during the July 4th weekend the students did everything imaginable: one group got lost, another group was caught in a bank slide, and another party was introduced to a grizzly bear (we still have the torn tent).

1946 BSF Industrial Forestry/Univ. of Michigan
1947 BBA Business Administration/Univ. of Michigan
1947 MF Marketing/Univ. of Michigan
1959 PhD Forest Economics/Syracuse
1959 Joined the ISU Staff

Dr. Steven E. Jungst
Associate Professor of Forestry

Dr. Jungst's most memorable event was "teaching" his first summer camp, which was also his first assignment as an instructor at ISU. An event which was almost his most memorable was when he just about threw a bucket of water on Dr. Thomson's head while he was an undergraduate (if this had happened you probably wouldn't be reading this article today). Dr. Jungst is interested in woodworking, hunting, fishing, computer programming, and golf (when Iowa weather allows it).

1969 BS Forest Management/ISU
1976 MS Forest Biometry/ISU
1978 PhD Forest Biometry/ISU
1975 Joined the ISU Staff

Dr. Mon-Lin Kuo
Assistant Professor of Forestry

Dr. Kuo specializes in the wood products area. He enjoys working with wood, photography, and spending time with his wife Carol and their 4-1/2 year-old daughter Vanessa. He has had many memorable experiences while at ISU and all have included student interaction, which he feels is very important. His advice to beginning foresters is to decide what you want to do with your life, set goals, and achieve those goals.

1965 BS Forestry/Chung Hsing National Univ., Taiwan
1971 MS Wood Science/Univ. Of Missouri
1977 PhD Wood Science and Technology/University of California at Berkeley
1980 Joined the ISU Staff
Dr. Floyd G. Manwiller  
Professor of Forestry

Dr. Manwiller enjoys woodworking, refinishing furniture, hunting, fishing, and teaching at summer camp. His most memorable summer camp experience occurred when he was an undergraduate. He was with a group of students who went for a boat ride, the boat died in the middle of the lake and they drifted to the other side of the lake. By the time they got back to camp Dr. Bensend was certain the boat had sunk and was ready to organize a search party.

1961 BS Forest Management/ISU  
1966 PhD Wood Science and Plant Cytology/ISU  
1978 Joined the ISU Staff

Dr. Harold S. McNabb  
Professor of Plant Pathology and Forestry

Dr. McNabb is very interested in working with young people and does so through student activities, like, the Boy Scouts of America, and church activities. Some of his most memorable experiences include: becoming a full professor in 1964, seeing students succeed, and his relationship with Woody Hart ("a pest man") while teaching PP SW 416. Dr. McNabb commonly travels abroad, he uses this experience when he advises students to do the best they can because we have the potential to do more than students in other countries.

1949 BS Botany and Chemistry/Univ. of Nebraska (Lincoln)  
1951 MS Forestry and Plant Science/Yale Univ.  
1954 PhD Forest Pathology and Plant Physiology/Yale Univ.  
1953 Joined the ISU Staff

Dr. Carl W. Mize  
Assistant Professor of Forestry

Dr. Mize will always remember receiving his FIRST Most Beloved Instructor Award, when Barry Graden asked for the envelope and said those famous words, “surprise, surprise it’s Dr. Mize.” If he could change one thing in this world it would be to eliminate all weapons of mass destruction. When he finds the time he likes to play GO, bicycle, run, backpack, fish (when fish are hungry), and party.

1969 BS Math and Chemistry/Brockport State University, New York  
1973 MS Forest Ecology/Humbolt State Univ.  
1977 PhD Quantitative Silviculture/College of Forestry at Syracuse  
1977 Joined the ISU Staff
Dr. Dean R. Prestemon  
Professor of Forestry

Dr. Prestemon specializes in wood utilization and extension forestry. His most memorable experience occurred at the Univ. of Calif.-Berkeley when he took his PhD prelims along with working, doing research, and raising a family of 6 kids with his wife Jean. When he finds the time he likes to read, fish, and attempt woodworking. He advises students to read more and to develop good communication skills as well as technical skills.

1956  BS  Forestry, Wood Utilization/ISU
1957  MS  Wood Technology/University of Minnesota
1966  PhD  Forestry/Univ. of California-Berkley
1965  Joined the ISU Staff

Dr. Richard C. Schultz  
Professor of Forestry

Dr. Schultz (Dick) lives in Roland, IA where he is active in several community activities, including the Volunteer Fire Department, the Story Co. Conservation Advisory Bd. and the Roland Park Board. Dr. Schultz's most memorable summer camp experience occurred when he was an undergraduate and Dr. Thomson showed the class the correct way to fell a tree, and it fell backwards. If it were possible, Dr. Schultz would decrease the time spent with bureaucratic red tape and increase time spent with his family and students.

1965  BS  Forest Management/ISU
1968  MS  Forest Biology/ISU
1970  PhD  Forest Biology/ISU
1979  Joined the ISU Staff

Dr. Wray works with Extension Forestry at ISU. When he's not with his wife Joyce and children, Jason (6) and Jessica (3) he prefers to be on the lakes and streams fishing for the mythical "record crappie." His advice to beginning Foresters is to "be positive and maintain an upbeat personality."

1968  Forest Management/ISU
1974  PhD  Forest Biology/ISU
1975  Joined the ISU Staff
Secretaries
(L to R): Kris Bell - Undergraduate Advising Secretary
Holly Anderson - Graduate Secretary
Rose Turner - Department Head Secretary

Meeting of the Minds
The ISU Forestry Department faculty
Graduate Students

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<tr>
<th>Name</th>
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Who says Forestry Students Don't Do Work?
Forestry Activities and Clubs
Periodically, about once every ten years, I get a really good idea. About half that often others agree with me. The LOTTERY may be one of the good ones.

When I became Chairman there were two things that I wanted to do immediately. One was to encourage the women in Forestry by having a two-day seminar devoted to the subject “Women and Men Working Together in Forestry”; the second was to stimulate Forestry students to become more aware of the performing arts while on campus. Why? So that there might be one more source of enjoyment to draw from for a lifetime and because the arts have a broadening effect that the science/management expert can profitably use.

Being brought up behind two much more talented brothers and once warned by my father, I hope in jest, that he would break my back if he ever caught me so much as whistling, I learned early that listening to and watching talented artists could be as enjoyable as watching athletes, horse races, or tractor pulls. When I began to realize that a great many college students in Forestry had never once gone to a concert or a play while in school I was appalled at the opportunities missed.

It was when an ordinary North Carolina farm boy, James Hilton, became President at ISU and spearheaded the $25,000,000 drive that gave us one of the world renowned centers for the performing arts right here on campus that I finally decided it was little short of criminal if a student left Ames without seeing the type of performances that have given so many people enjoyment.

In 1976 we took $60 from one of the Alumni donation accounts and bought one ticket for each of 26 events booked for Stephens, Hilton and Fisher. That first year 415 students signed up for the 26 free lotteries. The program was launched to mild acclaim although it soon became apparent that it would be a great deal more popular if the winner received two tickets. In all following seasons two tickets have been acquired for each winner.

Upon the death of Dr. J. A. Larsen, long-time Forestry professor here, a sizable memorial fund was established by his daughter and son, Margaret Blumenschein of Omaha and Einar Larsen of Newton. With the approval of the family the ISU Alumni Foundation established the Larsen Memorial Fund for the Arts (Forestry) in October of 1977 and placed $1140 at the disposal of the Chairman of Forestry for use in encouraging ISU Forestry students to attend performances booked into the various Center auditoriums. This was particularly appropriate because of the life-long interest J.A. (Skipper) Larsen had in painting (several of his water colors can be seen in the Forestry Office and Reading Room), in literature and in theater. The 1977 AMES FORESTER is dedicated to Dr. Larsen and tells much more about his life.

From 1976 to 1980 2256 students had signed up for 70 events covering a wide range of performances from Benny Goodman to Marcel Marceau to Beverly Sills to Guthrie Theater to the Boston Pops to the Cleveland Symphony. It rather soon became evident that there was a lot of pretty enjoyable stuff available and even if it was not sometimes as exhilarating as hoped it was still fun to win something. Early in the life of the Lottery one student won tickets to a chamber music quartet that put on a program that was unbelievably difficult. I asked this fellow how he liked the concert. “I hated it,” he said, “but I’m sure glad that I tried it.” That was rather close to my reaction to WW II.

In the years since we started the Lottery we have spent the initial $1140 and the donors have put in $370 more. Although enrollment in Forestry has dropped sizably since 1976 the number of participants in the Lottery has steadily increased. Last year we had 558 sign-ups for 17 events of two tickets each at a cost of about $140.

The idea of the Lottery is not to cultivate a phony “high-browism” but, instead, to provide a mild prodding to look into the unfamiliar. Tractor pulls and rock concerts have their place but have been excluded from the Lottery simply because they are part of the culture that students already know. While the pipers of the Black Watch and the razzle-dazzle of the Chinese Acrobats are tremendously entertaining both are
unfamiliar and expensive and thus might be easy to pass by. The Amsterdam Concertgebouw sounds forbidding and perhaps the inexperienced and broke of pocket book would not be likely to try this great orchestra. The purpose of the Lottery is to give two people free tickets while simultaneously reminding several dozen others that an event worth experiencing is at hand.

After eight years of watching the Larsen Arts Lottery I can say that I am glad that I had Skipper Larsen as a model when I was a student and that Iowa Staters had C.Y. Stephens as a fellow alumnus. It’s Stephens’ statement that you can read in the Auditorium named for him the next time you are there:

“...I would have liked to write a fine poem or a great book or possibly made a worthy discovery in science but since all of these accomplishments have been denied me I shall use my ability to accumulate money in such a manner as to make it possible to train many others to do the things I would have done.”

Perhaps the Lottery is a small memorial to two ordinary men who had an extraordinary perception of what is important.

★★★★★★
George W. Thomson
Chairman, Forestry
March 3, 1984

FORESTRY CLUB

by Maureen Connolly

During the 1983-84 school year, forestry club members were involved in a number of activities. October was Conclave month. Fall Forester’s Day took place at Iden Farm, providing practice time for Conclave hopefuls. Sharon Baas, Janel Peterson, Dora Schrodt, and Barbara Zylstra represented Iowa State University at the Midwest Conclave, held at the University of Illinois in late October. We finished twelfth out of twelve schools and received the booby prize — a toy chain saw.

Additional activities occurred early in the fall semester. A firewood cut at Saylorville Lake in September was sponsored by the Club and the SAF Student Chapter. Reinee Hildebrandt organized volunteers to help with old time logging events and educational displays for Scout Day at Adventureland Park. Sixteen members enjoyed a club-sponsored canoe trip down the Des Moines River between Holst State Forest and Ledges State Park.

Activities for the rest of the year included an appearance on the Floppy show to promote the annual Christmas tree sales, firesides at professors’ homes for talk and munchies, a t-shirt design contest, the Game Banquet, and work on VEISHEA displays.
CHRISTMAS TREE SALES
by Bil Davis

This year we faced a few roadblocks while preparing for the annual Forestry Club Christmas Tree Sale. The first came at the very beginning of the preparations when we were told the sale could no longer be held in the traditional spot south of the Memorial Union due to traffic problems with the parking ramp. After looking at various locations we decided to set up shop in the motorcycle parking lot between the Union and Lake Laverne.

This year we again purchased our trees from Merrillam, Wisconsin and Genesea, Illinois. Due to the hot, dry summer, white pines were virtually unavailable. This caused a problem because white pine was our most popular Christmas tree; thus we were forced to substitute red pine for the absent white pine. The red pine was not easily marketable so we ended up with 30 of our original 450 trees remaining after the sale.

All in all we had an enjoyable sale which netted over $1300. I would like to thank everyone who took part in the sale, especially Gregg Engelken and Marty Wimmer for the use of their trucks for transporting the trees, and to Duane Elliott and Floppy for letting us advertise our sale on their T.V. program.

Firesides

by Deb Knickrehm

The 1983-1984 Firesides were a huge success. These small informal get-togethers allowed students to get to know the professors outside the classroom. They were held on Sunday nights and either a snack or meal was provided along with plenty of conversation about the good old days and of the future in Forestry. We also learned that Dr. Manwiller used to practice his wood identification on his wife’s kitchen utensils & furniture.

There were many firesides this year. Dr. Jungst and Dr. Countryman held theirs in the fall, while Dr. Manwiller, Dr. Thomson, & Dr. Hopkins held theirs in the spring. There was a large number of students who attended this year’s firesides. The professors as well as the students enjoyed the get-togethers. The photo below is from the fireside held at Dr. Thomson’s home.
March 24, 1984 was an evening filled with appreciation for those involved with forestry at Iowa State. It was time for celebration of another fine year which had passed. The setting for the celebration was the Scheman Education Building where the 1984 Wild Game Banquet was underway.

The banquet began at 6:45 p.m. with the blessing which was given by Deb Knichrehm. Next on the agenda, came the dinner which consisted of the usual Game Banquet delicacies such as deer, buffalo, duck, goose, pheasant, rabbit, raccoon, trout, and even beaver. These meat delights were all made possible through donations from Dora Schrodt, Marty Wimmer, Les Miller, Gregg Engelken, and Scott Webb. With the special touches added by the cooks, the entire meal was one which was fit for a king. After the meal, the banquet proceeded with the program.

The program began with an introduction and welcome by the new Associate Dean of the College of Agriculture, Dr. Kenneth L. Larsen. Dr. Larsen had recently joined the faculty at Iowa State, filling the position previously held by Dr. Louis M. Thompson. Dr. Larsen was introduced by Dr. Lee R. Kolmer, Dean of the College of Agriculture. Dr. Larsen then gave those present a synopsis of his background using a touch of humor here and there. Finally, Dr. Larsen was welcomed by Forestry Club President Jay Eason and was presented with a Forestry Club T-shirt.

The evening then proceeded with the presentation of the academic awards. The first awards to be given were those from the Forest Products Research Society. Receiving the Student Membership Award was Nancy Roys, and the Book Award was presented to Randy Clark. Next came the Society of American Foresters Award. This award was presented to two people this year. The recipients of the S.A.F. award were Theresa Callery and Maureen Connolly. The next awards of the evening came from the honorary fraternity, Xi Sigma Pi (XΣΠ). The first of these awards was the Keith A. Bauer Award. This award is given to someone who possesses the qualities that Keith A. Bauer expressed. This year’s recipient of the Keith A. Bauer Award was Michelle Cram. Dr. Harold McNabb, National Forester for XΣΠ, presented the National XΣΠ Award next. This award is one of few presented in the U.S. and Iowa State was very proud to have Brian McGee receive this award.

A new award was given at this year’s Game Banquet. It was the Faculty-Alumni Award and it was presented to Nancy Roys. Finally came the Iowa State Forestry Department’s most prestigious award; The John Milton Cone Award. This award is given in honor of John Milton Cone, an outstanding student at Iowa State.
in Forestry from 1961-1965. John was inducted into the Army in September of 1968, after he received his Masters of Forestry Degree that Christmas from Berkeley. Unfortunately, John lost his life on November 17, 1969 near Tay Ninh, Viet Nam while serving his country as squad leader of the First Air Cavalry. This award is presented on behalf of John Milton Cone representing his fine qualities. This year’s recipients were Eric Main and Linda Haefner Haugen.

The evening continued with the recognition of the four organizations in forestry. Those recognized were the Forestry Club, Forest Products Research Society, Society of American Foresters, and Xi Sigma Pi.

The banquet presentation was next on the agenda and this year it was given by Miriam Dunlap, Public Relations Director at Living History Farms in Des Moines. Her presentation topic was a wild animal safari which she partook of in Africa. All those present enjoyed the slide presentation which was given. It was very interesting and gave everyone a view of some real “wild game.”

The evening concluded with the presentation of the Most Beloved Teacher Award which was presented to Reinee Hildebrandt for her many humorous undertakings throughout the year. After this presentation, Gregg Engelken, 1984 Game Banquet Chairman, extended many thanks to those who helped make the evening a success. Finally, Scott Webb, Master of Ceremonies for the evening, closed and bid all a fine farewell.

Another Game Banquet has passed but memories of what went on will never die. One can only look forward with anticipation of the 1985 Game Banquet.

**VEISHEA**

This year’s Forestry Veishea Display is being supervised by W. Math Heinzel. The theme of this open house display is “Forestry: Growing in Excellence.” The various subjects of the display are tied together using a tree theme: roots (history), stem (basics), and branches (areas of specialization and alternatives).

Veishea is also the time in which Smokey and Woodsy Owl make their traditional stop to the Forestry Department and greet the people on campus, inviting them to see the Forestry Displays.

The traditional tree seedling sale will take on a different look this year as the seedlings will be GIVEN away instead of sold. This was changed so that more people will be introduced to the Forestry Department.

People of all ages enjoyed the VEISHEA Display
The Year In Review
Forestry Summer Camp 1983
by Jane Riesberg

This article is dedicated to the few, the chosen, who actually know that there is a Sheffield, Pennsylvania in this vast world in which we live. Yes, I am talking to you, 1983 forestry summer camp members. Don't deny it. I saw you there, for I too was among the chosen.

It all began innocently enough on June 12th when thirty-one students entered the old YCC camp, nestled in the midst of the Allegheny National Forest. Awaiting our arrival were Dr. Jungst, Dr. Colletti, and Dr. Hall, each with grins on their faces as they anticipated the grueling weeks ahead.

In the weeks that were to follow, we all learned many things from each instructor.

From Dr. Jungst we learned:
1) That mensuration and rain were synonymous — one could not be done without the other.
2) That a dog (Ginger) isn't really a man's best friend but really a student's warning signal of its approaching master.
3) That "mensuration" isn't a dirty word after all and is a vital part of forestry.

From Dr. Hall we learned:
1) That three-foot wide trails along the side of a steep hill were meant for five-foot wide vans, not goats.
2) That white pine CAN and WAS on many occasions, identified from a distance of 3 miles.
3) That counting the needles on a western hemlock wasn't a waste of time, nor were the many other experiments and projects we conducted during our stay.
From Dr. Colletti we learned:

1) That there was no such thing as "too many mill reports."

2) That Hammermill Paper Company believes that robots are the next best thing to God.

3) That if you've seen one lumber mill you haven't seen them all (if you don't believe me, I've got a BIG stack of mill reports to prove it).

In our spare time there were horseshoes and volleyball to be enjoyed by all. An evening trip to Sheffield's Pour House was said to work miracles for the spirit. Deer were easily viewed during long walks after dinner. We even had a mother bear and her cubs visit us occasionally. A final visit to the "pod" to share a few bad jokes with friends by the campfire ended most summer days.

By the time we couldn't digest yet another peanut butter sandwich and realized there were no more cookies to raid in the kitchen, it was time to go home. Another summer camp had ended, leaving us with our memories and new found friends.
The 1983-84 school year saw a lot of "firsts" for the SAF student chapter: work projects and a series on job searching methods were initiated, and forestry programs were organized.

This year's work project consisted of a stand thinning at Holst Tract State Forest. Several red pine stands were looked at. The sites were discussed and evaluated as to their overall health, stand density, growth, and required improvements. Jim Bulman, Western Iowa Supervisor, and Duane Stoppel, District Forester, were on hand to guide the talks and answer student's questions.

After a site was chosen for a thin-from-below operation, tree marking techniques were explained and some trees were marked. Short talks on chainsaw use and safety were given before the cutting began.

Two and one-half cords of firewood were removed from the site that day. The following weekend a log-splitter was rented and the wood was split and piled. The wood will be sold next year as a fundraiser for the student chapter.

The chance of establishing the stand thinning project as an annual event is being looked into. This project will allow students to put their education to practical use and will improve the quality of the stands in Holst Tract.

Student desire to be prepared for the "real world" and the job searching process resulted in the development of a mock interview session. Any forestry students interested in gaining experience in handling an interview were invited to participate. Mock interviews allow students to become familiar with interview techniques. The mock job each student interviewed for was a Forester 1 position—an entry level job. Everything about the interviews were realistic except that no one was offered the job. Each participant was required to prepare a resume, be properly attired for the situation, and was interviewed by a staff member from the Iowa Conservation Commission.

"Field Forester for a Day" is a forestry program that shows a lot of promise. Two or three students at a time are invited to accompany district, state, or regional foresters for the day and participate in the forester's work. While helping the foresters with their work, the students are gaining practical skills and experience. Some field days have included: walnut stem analysis at Holst Tract State Forest, walnut measurements at Walnut Woods State Park, Des Moines, and data workup and computer entry for timber inventories on state lands that the Iowa Conservation Commission is concerned with.

For the present, only a few foresters at the Iowa Conservation Commission have been able to participate but if this program's present popularity continues, more detailed field programs may be organized with foresters throughout the state.

With their activities this year, the SAF student chapter has shown a lot of potential and will undoubtedly continue providing professional forestry activities to students in the years to come.

by Theresa Callery

SAF Officers (L to R) Mike Norris - Sec./Treas., Janet Beall - Chairperson Elect, Theresa Callery - Chairperson, Amy Lippitt - Undergraduate Student Rep., Deb Knickrehm - Forestry Club Rep.

SAF Students (L to R): Dora Schrodt, Brien Schumacher, Chris Larkin, Jim Daniels, Carol Duff, Mark McCulloch, Janet Beall, Pete Cyr, Nancy Roys, Frank Gerken, Theresa Callery, Curt Bader, Deb Knickrehm, Linda Haugen, Jeff Regula, and Dr. Hall (Faculty Advisor)
Xi Sigma Pi is a national honorary fraternity which recognizes outstanding forestry junior and senior undergraduates, graduate students, and faculty. The Alpha Gamma chapter was established at ISU in 1965 as a service-oriented honorary. Each fall the new initiates choose and complete a service project before initiation.

This year the project chosen was low income housing improvement for Ames Housing. When the project was finished, the initiation banquet was held at McMahon's Brown Bottle Restaurant. Sylvan Runkel took everyone on a walk through the woods via slides following the formal initiation ceremony. New undergraduate initiates were Randy Byrd, Randy Clark, Jay Eason, John Gleason, Linda (Haefner) Haugen, Eric Main, Jane Riesberg, Eugene Rilling, Nancy Roys, and Brien Schumacher. New graduate members are Larry Bair, James Blohm, Young Woo Chun, Daniel DiCarlo, Edgar Gutierrez, Gail Hall, John Kean, and Cheng-Hsiang Lin.

In addition to the service project, Xi Sigma Pi provides Forestry division judges and contributes toward Forestry Consortium Awards at the Hawkeye Science Fair each spring. Reinee Hildebrandt was responsible for organizing this activity this year.

Xi Sigma Pi is divided into 5 regions in North America. Iowa State is in the West Central region along with 8 other chapters. Each year one chapter in the region is designated to choose 2 scholarship recipients from nominees submitted by each of the other chapters. The scholarship recipients receive a monetary award. For the past 2 years an Iowa State student has been selected as a recipient, this year Brian McGee was chosen to receive an award.

The Alpha Gamma chapter also sponsors a book award to the outstanding sophomore in forestry, given in memory of Keith A. Bauer. Michelle Cram received the award this year.

The 1983-84 Chapter officers were Jerry Olson, Forester; "Kome" Onokpise, Associate Forester; Brian McGee, Ranger; and Doug Stokke, Secretary/Fiscal Agent. The newly elected 1984-85 officers, in the same order, are Dennis Haugen, Eric Main, Nancy Roys, and Eugene Rilling.

The National headquarters for Xi Sigma Pi are rotated every two years. Once every 84 years, Alpha Gamma is the chapter with this responsibility. In 1982-84 Iowa State was the designated Forestry School to host the position. The national officers of Forester, Associate Forester, and Secretary/Fiscal Agent were held respectively by Harold S. McNabb, Jr., Paul H. Wray, and Frederick S. Hopkins, Jr. They were responsible for keeping the records of all members and initiates and publishing a 5-year record, writing the annual newsletter, attending the national meeting at Portland, and attending to all other national level business.

"With enough trees, we'll all breathe a little easier."

"Trees, like other green plants, help purify the air we all breathe, by replacing carbon dioxide with oxygen."

"And with all the smoke, the exhaust, and the fumes in the air today, we need all the help we can get."

"Our job is growing. Help us all breathe a little easier. Write for information on what you can do."

American Foresters
5400 Grosvenor Lane, Bethesda, MD 20814

Society of American Foresters
Ralph Waite
for America's professional foresters.

Xi Sigma Pi Work Day
FPRS Student Chapter

by Eugene Rilling

The student chapter of the Forest Products Research Society (FPRS) is in its second year of establishment at ISU. The members feel this club will become and remain a tradition within the Forestry Department. Throughout the year the club participated in field trips, sponsored donut sales, and cut trees for future firewood sales.

Chapter officers for the 1983-84 school year were Randy Clark and Jeff Kern, Co-Chairmen; Tom Symonette, Vice-Chairman; and Eugene Rilling, Secretary-Treasurer.

By meeting with professionals and by touring facilities in the region, the FPRS provides students with the opportunity to learn more about the forest products industry with "hands-on" experience.

The Midwest Section of the FPRS held its fall meeting in Cedar Rapids, Iowa. This meeting covered the topic of how to increase sawmill efficiency. Experts in this area lectured on research findings during the first day, followed by tours of the Amana Furniture Factories on the second day. Seven ISU students attended this meeting as did students from several other Universities.

The National Meeting of the FPRS will be held in St. Louis, Missouri on June 24-28, 1984.

SAF National Convention

by Theresa Callery

In October Janet Beall, Theresa Callery, Reine Hildebrandt, Deb Knickrehm, Tim Morrow, Doug Rubel, and Kristi Struchen travelled to Portland, Oregon for the 1983 SAF National Convention. Several recent ISU alumni — Anita Montag, Paul Reid, Jeff Prestemon, and Clark Ott, made an appearance at the convention too.

While in Portland, not a minute was wasted. Carl Mayer, at ISU Forestry alumnus, showed us the highlights of Oregon and Washington; an exhausting 3 days of sightseeing and convention activities left us with sore feet but a lot of great pictures and stories. Carl and his wife Rosalie acted as guides and as hosts by opening up their home to Janet, Theresa, Kristi, and Deb during the convention.

The theme of the convention was "New Forests for a Changing World." Two days of lectures revolving around that theme included topics such as: Economics, Policy and Law, Land Use Planning and Design, International Forestry, Technology Assessment and Future Analysis, Recreation, Urban Forestry, and many others. Along with the lectures, field trips were offered. Some of the trips that ISU students went on were the Forest Ecology and Soils trip, the Columbia Gorge trip, and the Student Tour to the Tillamook burn area and to the Oregon coast.

Between attending the convention and sleeping, there was still enough time to make trips to Mount Hood, Timberline Lodge, Mt. St. Helens, and several historical sights in Portland.

The 1984 convention will be an international event and will be held in Quebec. The dates for the '84 convention are August 5-8. A few students are already making hopeful plans to attend.

Pittock Mansion, Portland Oregon

Deb. Janet, Theresa, Doug and Kristi relax on an Oregon beach

The Timberline Lodge near Mt. Hood

The Timberline Lodge near Mt. Hood
For me, the summer of 1983 was enjoyable, educational, financially rewarding and full of surprises. Perhaps the biggest surprise was I never left Iowa! So how did I do it? Detasell corn? No! I got a job.

It all began when a friend of the family gave my name to a potential employer. One week later I got a call from the U.S. Army. That is the U.S. Army Corps of Engineers.

On May 31, 1983 I received my commission as a summer Park Technician (GS-4) and was assigned to the Mississippi River Recreation Resources Project. This project is an extension of the Recreation Resources Management Branch of the Rock Island District (RID), which extends south from Guttenberg, Iowa to Saylorville, Missouri. Included in the Branch area offices at Coralville Lake in eastern Iowa, Red Rock and Saylorville Lakes in central Iowa. The RID contains over 52,000 acres of bottomland forest on the islands and along the shorelines of the mighty Mississippi River. Rich alluvial soils found on the floodplains support stands composed of mostly silver maple, cottonwood, green ash, and river birch with shellbark hickory, bur oak, pin oak, and pecan as lesser components.

As an assistant to the Project Forester, my duties were very different and more varied compared to most other summer Park Technicians. I concentrated mostly on stand-mapping, occasionally engaging in timber stand improvement activities such as marking timber or using herbicide injecting equipment. The usual duties of the summer Park Technician involve either park patrol by automobile for the purpose of engaging in visitor contact and compliance, or staff work at visitor centers. These parks and visitor centers are commonly located near rivers and reservoirs equipped with dams or other water control structures owned and operated by the Corps. From my observations, prospects for obtaining one of these summer positions are generally best for persons with prior experience or a college background in forest recreation. However, as exemplified by my good fortune, circumstances are clearly the most important factor.

During the late 60's and early 70's, tree harvesting slowed down and eventually ended as a result of recent research which suggested that selective cutting was not the best method of management to use on these forests. Cutting did not occur again until the winter of 1982-1983, just prior to my arrival in May of 1983. That cut marked the beginning of a new harvesting policy in accord with a new management plan which took effect in April of 1982. This plan, called the Forest, Fish and Wildlife Management Plan was the end product of “four years of research, planning, forest inventory and coordination meetings” by the Corps Project Forester and other resource managers from state agencies and the U.S. Fish and Wildlife Service (USFWS). According to the Project Forester, its major thrust is to “achieve a proper balance of various types of habitat for certain wildlife species by providing a constant supply of different age classes of trees. This is achieved through a regulated cutting cycle.” I was hired by the Project Forester to facilitate efforts to implement the plan and to accelerate progress being made towards achieving this goal.

One of the first activities the Corps engaged in under this new plan was to stand-map the forested areas near the Mississippi River. My major role was to assist in completing this task in those areas designated by my supervisor. This noble goal represents a monumental effort which to date has been handcuffed by a limited work staff. The Project Forester essentially does all the planning of the management activities and directs the fieldwork, too. He is assisted in the field by the Corps District Forester and a full-time Park Technician. On various occasions, additional help comes from other Corps employees as well as from employees of state agencies with which activities are being coordinated. As a summer Park Technician I was not only expected to work closely and effectively with other employees, but was also required to assume responsibility for scheduling and carrying out many activities independently. These solo assignments began just two weeks into the job when my supervisor departed for two weeks for Army Reserve Training. This left me with exclusive use of a brand new four-wheel drive pickup and an 18-foot flat-bottomed boat equipped with a Johnson 70hp motor. Vrrroom! I
discovered that many of the areas scheduled for mapping were horri-
ably unforgiving places. The burn-
ing wood nettle often was 10-foot
tall and poison ivy was rarely con-
tent to remain a vine or even a
shrub; it was often present as
small one-to-two inch diameter
trees. What’s more, I am sure
none of us will ever forget how hot
it was that summer. Admittedly,
the harsh conditions temporarily
dampened the spirits at times, but
in the long run, it had little impact
in the overall quality of my sum-
mer with the Corps. The many
humorous occasions certainly
overshadowed any apparently try-
ing times. Included in the following
are just a few of these moments
that have not escaped my mem-
ory.

1. Travelling by boat to Huron Is-
land with an archaeologist who
had just finished his doctorate
degree. We had some good
conversation and he even
managed to convince me that
archaeology could be exciting,
at least for the moment. When
we finally arrived at the island
we proceeded to dig some
holes and a few deep pits in
various locations inside the
boundary of an area that was
scheduled for a five acre patch
clearcut the following winter. If
the sediment depth was two
feet or more we could be confi-
dent that logging activity would
not unearth ancient Indian re-
lics. I was hoping to find evi-
dence of Tom Sawyer or Huck
Finn, I’d even settle for part of
their raft. This island was 1500
acres and was divided by
many narrow sloughs and
smaller waterways. We quite
fondly referred to it as the Iowa
version of the Amazon jungle.
Reaching the interior of the is-
land by boat required all my re-
efined skills. I was always care-
ful to avoid the submerged logs
that were rarely seen until they
were first heard.

2. When stand-mapping in the
backwaters of the Wapsipini-
con River, my companion and
I got lost. Somehow we man-
aged to walk into a maze of
waterways which could not be
seen on the aerial photos. My
companion had no boots on his
feet so I carried him across
these waterways. On more
than one occasion I remember
laughing so hard that I nearly
dropped him.

3. The time when I got so excited
over a stand of oak I found
after mapping in silver maple -
cottonwood stands all day, that
I tripped and fell headlong into
some burning wood nettle.
Looking back on my summer
experience, I feel very fortunate to
have had the opportunity to work
with such a variety of individuals,
each one unique in his or her own
way, with something different to
offer. In my estimation, my biggest
accomplishment for the summer
was to realize this and to open my
mind and ears to hear the wisdom
of their years. Moreover, I am now
thoroughly convinced that an am-
bitious approach to work, not the
knowledge we acquire at the Uni-
versity, is our greatest asset to a
summer employer. An honest de-
sire to do more than what is ex-
pected will help one to develop a
meaningful, working relationship
with an employer. This positive at-
titude can transform a good ex-
perience into a great experience,
like my summer with the Corps.

Urban Forestry

by Sharna Robinson

As spring rolls around, the
thoughts of summer jobs start to
creep into one’s mind, especially
when you still need to fulfill your
Ag. 104 requirement. Such was
my predicament last spring until
Dr. Jungst informed me of the op-
portunity to apply for a job in
Urban Forestry. The place was Ft.
Dodge, la. and the mission was a
city street inventory. As luck would
have it, I did get the job which
turned out to a summer full of ad-
venture, learning, and fun.

The task of collecting data on
all of a city’s trees seemed almost
impossible. But, with the guidance
of City Forester Richard Straight
(I.S.U. alumnus 1980), my partner
Tammi and I managed to make
fast work of the concrete forest.
The actual collection of data
was not very difficult if one enjoys
walking some three-hundred plus
miles. My dendrology skills
would have been greatly enhanced by
the constant contact with trees and shrubs. The
more challenging part of the job
was tracking down streets from
the city maps that were supposed
to be there but weren’t, or discov-
ering a new street that had not yet
been put on the map. These unin-
vited headaches were usually sol-
vied by a trip to the city engineer’s
office.

The most dangerous part of this
job came in trying to explain to the
grandmothers in housecoats,
armed with brooms, rakes, and
various other weapons, that you
were only looking at the trees
and not going to cut them down.
Another treacherous part of the
job was learning to dodge the chil-
dren who consisted of anything
from the teething toddler to the
eight-year-old who wanted to lend
a helping hand by donating his
chain saw to help us cut down all
the trees.

AMES FORESTER

45
One of the most stimulating parts of my job was stumbling across an “unknown” species of tree or shrub and trying to decipher what it was. It is hard to believe some of the strange things we would find planted in the city parkways. We welcomed these “unknown” species as a nice change of pace from the typical ash, silver maple, and hackberry. These new species also gave us the chance to increase our knowledge, as well as attempt to stump the boss (which we rarely succeeded in doing).

Once we had the street tree inventory behind us, we made the move up the big ladder to the inventory of the city parks and green belt areas along the Des Moines River. This involved plotting trees of each park on a map along with collecting data for each tree. The green belt was inventoried by taking a simple random sample of the areas. Tammi and I managed to take a sample of more than just the tree species present, by getting a nice “feel” for the poison ivy in the area.

The summer experience I got as an urban forester was very good. I saw how forestry is an important aspect of managing city trees. The general exposure to solving unexpected problems that came up and working as a productive team with my partner and the forestry department personnel was also a very beneficial experience.

I worked with llamas last summer while doing trail work in the Mount Zirkel wilderness area in northwestern Colorado. The Forest Service rented the llamas on an experimental basis. The cost was 1000 dollars a head for four months. We used two llamas, each carrying 90-100 pounds.

Llamas originally came from the Andes in South America. All that are presently in the United States have been bred here since importation of llamas is banned. In fact, North American llamas have become quite larger because of our superior feed.

They are included in the camel family. Llamas may go for days without water. Their selection of food is broad, they browse on everything from grasses to trees and shrubs. Grain has little nutritional value for them, but is like candy to them. This is very useful for attracting and catching llamas.

The lower jaws of llamas have no teeth to speak of. This means that they must feed by pulling the vegetation (pulling rather than clipping) and the broad range of food makes for minimal vegetation disturbance. This may be important on fragile sites.

The hooves of llamas are small and are equipped with pads on the bottom. These pads are similar to those on a dog’s foot. Because of this, trail and soil disturbance is slight. They also have good footing on bare rock.

We transported our llamas in a pickup truck with a stock rack which they could easily jump over. This gives you an idea of how well llamas can jump, they are very sure-footed.

Generally, llamas do not like to sink far in snow or mud. This may be a serious handicap if travel in snow around 1.5-2 feet deep is required. It’s best to keep males and females separate in working situations. Llamas may mate anytime of the year and are known for taking advantage of that.

Llamas have the most mild, mellow temperament of any animal that I can think of. They are very inquisitive and almost never spook. Other people and animals seldom do more than make them curious. However, horses unaccustomed to llamas often become unusually nervous.

Llamas are quite gregarious and have a well established social order. Dominance is established by butting at the opponent’s face, kicking at glands low in the hind legs, and spitting. It is best to avoid touching their heads or lower hind legs. Only bottle-fed llamas or very strongly dominant llamas will spit at humans. They never bite and only kick if their hind legs are touched.

On the trail, our llamas were contained by a 10 foot long picket rope. They may get the rope tangled, but they are intelligent enough to unwrap it themselves. If it is badly wrapped, a llama will simply lie down and wait for help. There were a few times when our llamas got loose last summer, but they were easily recaptured by the presence of the other llama and a bit of grain.

I was very pleased with the llamas I used and I became fond of them. I would suggest them for any kind of back country packing except in deep snow.

Llamas in the Rockies

by James Daniels

The use of llamas as pack animals in the United States is increasing in popularity. Llamas cause only light ecological impact, climb and jump well, and are easy to work with.

Foresters of the Future?
I was only one of many I.S.U. forestry students who were temporarily employed on the Black Hills National Forest during the summer of 1983. My position was that of head forestry technician, in what was to be my first experience with the Forest Service. So the first week in June I chased the mice and rats out of bungalow #3 at Pactola Work Center, approximately ten miles west of Rapid City, and I moved in.

To start things off the summer employees underwent various training sessions, many of which took place at the Supervisor's Office headquartered in Custer S.D. Everyone took part in fire-fighting and first aid training, and of course we took the infamous "step test" to prove ourselves worthy of the title "firefighter." Some of us went through driver's training to be certified for driving government vehicles. After taking a drive over rugged terrain with a 4WD vehicle, under careful supervision of course, our district law enforcement officer issued me a license and my own 2WD Chevy Luv (a faithful companion throughout the summer).

My job was to head a 2-person cruising crew and, much to my surprise, the other crew member turned out to be Julie Goodspeed (another senior in Forestry at I.S.U.). We were assigned to upcoming timber sales throughout the district. Julie and I were responsible for making our own cruising maps, allocating the correct number of plots on the area and finding the areas in the field by using topography maps and photos. I estimated and measured heights and diameters (among other things) while Julie recorded the information in an electronic notebook and kept me on track. We became quite proficient at using a compass and pacing off distances between plots. At the end of each cruise we had to take old faithful to Custer and "dump" the cruise data into the computer at the Supervisor's Office. A printout was then mailed back to the Ranger Station in Rapid City (headquarters for Pactola) with a complete statistical analysis.

Not only did we cruise timber, we were also called out on several fires throughout the summer. I must admit that my enthusiasm for firefighting was severely diminished after the first one, which was in Beulah, Wyoming. The temperature that day was about 100°F and fire-retardant clothing is very uncomfortable when conditions are that warm. If one can tolerate the discomfort, however, the pay is very good. Most fires in the Black Hills do not amount to much more than 1 or 2 acres. But I was out all night on a fire near Hill City (Custer District) and we had the excitement of an aerial drop which is quite rare for the Black Hills, as the plane had to fly from Denver, Colorado.

Initially I was rather disappointed with my job. It seemed that the district was ill-prepared for the arrival of summer help and we didn't get to cruise until a month had already passed. But this was an opportunity to do some other interesting things such as timber marking, stage II inventory, map-making at the Ranger Station, boundary marking, and touring the district with our supervisor. One needs to get a concept of the sheer size of the agency and of the bureaucracy and policies involved to understand why the Forest Service is not as efficient as one might like it to be.

In general the summer was very satisfying and rewarding. I enjoyed living in seasonal housing at the work center with six men and three women from all over the U.S. Recreational opportunities were limitless. Scenic Pactola Reservoir was merely five miles away and many hot summer afternoons were spent diving into the icy waters. Many secluded camping sites exist in the Black Hills if one takes the time to search them out. Spelunking at the Elk Mountain District with fellow Iowa Staters was one of many highlights. In retrospect, 10 weeks on the Black Hills National Forest went very quickly.
Tom Agan is a Management major with a minor in Business Administration from Westfield, Mass. While in school Tom was Chairman of the Board of The Iowa State Daily, President of Sigma Alpha Epsilon, editor of the 1982 Ames Forester, and a Forestry Club member. Tom was also a member of Xi Sigma Pi and Gamma Sigma Delta honorary fraternities and has received the Hoo Hoo Club of Iowa Scholarship. Tom has worked for the Forest Service on the Chippewa Nat'l. Forest and for V.I.S.T.A. in Lawrence, Kansas. When not bicycling, sailing, or rock climbing Tom will be working in industry after graduating in December, 1983.

Curt Bader’s major option is Recreation with a specialization in Forest Management. He is a native of Bloomfield, Iowa where he started his hobbies of canoe and kayak racing, and outdoor recreation. Curt has been involved with the Society of American Foresters since coming to ISU. Curt has worked on a logging operation and portable saw mill, and in sales of lumber. He plans to use these acquired skills in the future by starting his own business in lumber sales. He is now training for the 1988 Olympic games, where he hopes to participate in flatwater kayaking. Good luck, Curt!!

Leslie Bender is a management major from Oxford, IA. Les gained valuable forestry experience while working in West Germany and the Black Hills Nat'l. Forest. During school he was active in Xi Sigma Pi, Gamma Sigma Delta, and Phi Kappa Phi Honorary Fraternities. He also received the prestigious Hoo Hoo Award in 1982 and graduated with distinction in the Fall of '83. Although he was known for his socializing, Les was also a respected Resident Assistant in the Dept. of Residence and an accomplished violin player for the ISU symphony. After graduation Les plans on joining the Peace Corps for 2 years.
LaVerne (Puff) Bown will receive a Management Degree with an emphasis in Forest Biology in May, 1984. His hometown is Reinbeck, Iowa. Puff is active in the ISU Rugby Club and enjoys hunting, motorcycle riding, and a variety of athletic activities. Some of his work experience includes collecting street tree inventory data for the city of Burlington, Iowa. Puff hopes to find a job after graduation and is considering attending graduate school in a year.

Theresa J. Callery is from Lisle, Illinois and will graduate in May 1984 with a Forest Resource Management degree and a minor in Range Management. She has done some Dutch Elm disease work for Chevron Chemical Company and has been very active in SAF activities (Chapter chairperson in '83-'84). Theresa also received the Student SAF award. She has interests in reading, horseback riding, and needlework. After graduation, she plans to work and possibly, in two years, go on to graduate school.

Maureen Connolly is a native of Urbandale, Iowa. She will graduate with distinction, in May of 1984 with a degree in Forest Management. Maureen was the 1983-84 Vice-president of the Forestry Club and is a member of SAF, Xi Sigma Pi, and Gamma Sigma Delta. In 1983, Maureen received the John Milton Cone Award. She spent the summer of 1983 working as a park supervisor in Clive, Iowa.

Greg A. Dunsworth is a Forest Products major from Davenport, IA. While in school he was active in many athletic activities, these included football, ISU Weightlifting Club, and intramurals. Greg was also a member of the Forest Products Research Society and Sigma Chi fraternity. Greg’s future plans include attending graduate school in the fall of 1984.

J. Jay Eason, a native of Clear Lake, Iowa, will graduate in May of 1984 with a degree in Forest Recreation. His college activities include: President of the Forestry Club, President of Scuba Club, Marching Band, Pep Band, Concert Band, Concert Choir, Swing Choir, Men’s Glee Club, T.A. for Scuba classes, and SAF member. Jay’s hobbies include backpacking, photography, model building, hunting, skiing and canoeing. Jay has worked for the Forest Service as a Forestry Technician doing TSI in Spearfish, S.D. He belongs to Phi Kappa Phi, Gamma Sigma Delta, and Xi Sigma Pi honor societies.

Pamela R. Eggers is a Shelby, Iowa native and will graduate in May 1984 with a Forest Resource Management degree. She spent the summer of ’83 as a Forestry Aid for the Black Hills National Forest; Elk Mountain Ranger District in Newcastle, Wyoming. Pam has been involved in activities, like, being co-editor of the 1983 Ames Forester, secretary/treasurer of the ISU student chapter of SAF, member of the Forestry Club, and a participant in intramural sports. She enjoys growing and caring for house plants, hiking, swimming and watching major league baseball games. After graduation, Pam would like to work for the county or state in either the Conservation Commission or Park system.
John F. Gleason will graduate in May, 1984, with a Forest Resource Management degree and a minor in Soils. He is from Omaha, Nebraska, and while at ISU, was involved in SAF and intramural sports such as football, ping-pong, bowling, and softball. His other hobbies include water skiing, camping, and music. John, who will graduate with Distinction, was a member of Gamma Sigma Delta, Xi Sigma Pi and Phi Kappa Phi. His work experience includes; timber marking, fire suppression, and traversing in the summer of 1983 for the Black Hills Nat'l Forest. John will be attending Oregon State Univ., working toward a Master's degree in Nursery Management.

Michael Goodchild is a native of Mallard, Iowa majoring in The Forest Products option of Forestry. Mike was a member of The Forest Products Research Society while at ISU. When not studying Mike enjoys hunting, motorcycling, and golf. Before coming to ISU Mike served in the US Army. After graduation in May he plans to work in the forest products industry.

Nicholas L. Hayes will graduate in May, 1984 with a Forest Resource Management degree and an emphasis in Computer Systems. He has gained work experience at the Shakes Run Golf Course at Armco Park. Nick is a Franklin, Ohio native who especially enjoys music, camping and traveling. After graduation, Nick hopes to obtain a job doing data analysis but he did state he would take any job he can get.

Ryan Hill is a products major from Ft. Madison, IA. Ryan was an active member of the Forest Products Research Society and the Off-Campus Association. Ryan gained forestry experience while working as a summer forester at the Iowa Army Ammunition Plant. After graduating in December, Ryan plans to work and live in Houston where he will pursue his hobbies; motorcycles, girls and skiing.

Bryan Humphrey is a Forest Products major, specializing in business/marketing. A native of Cardington, Ohio, Bryan's interests include athletic activities, hunting, fishing, and music. He belongs to the Forest Products Research Society. Following graduation in May of 1984, Bryan hopes to obtain employment in the products industry.

Iowa City's Julie Goodspeed is a Forest Management and International Studies major. Since coming to ISU, she has been involved with SAF & the Society of International Dev. She has also served on the communications committee for the Nat'l. Wildlife Federation, as Ames Forest Advertising Mgr. 1982, and has participated in RHW. Julie's hobbies include hiking, reading, and thimble collection. Julie's work experience includes Genetic research work for Dekalb-Pfizer and timber-marking for the Black Hills NF. In the future, she will return to the Black Hills for the 1984 season. She would then like a permanent job in industry or in government land management. Eventually, Julie would like to get into forestry overseas.
Bradley T. Johnson graduated in December of 1983 with a degree in Forest Management. Brad, a native of Buffalo Center, IA, has worked for the USFS on the Black Hills Nat'l. Forest with a timber sale marking crew, and attended the 1981 summer Camp in Cloquet, Minnesota.

Rick Johnson will graduate in May of 1984 with a degree in Wood Products. He attended summer camp in 1981 at Cloquet, Minnesota. Rick has worked for the U.S. Forest Service in the San Bernadino National Forest, as well as a lifeguard for the Scott County Park System. He is a student member of the Forest Products Research Society, and is a member of the ISU Weightlifting Club. His hobbies include swimming, lifting weights, basketball and music. Rick's hometown is Davenport, IA.

Tom Lynch is a Waterloo, Iowa native and will receive a degree in May, 1984 in Forest Management with a minor in pest management. He was a crew leader in 1981 and 1982 for the Iowa Youth Conservation Corps in Creston, Iowa. Tom has been a member of the Forestry Club and of the Society of American Foresters. His hobbies include photography, playing the bass guitar and playing the harmonica. After graduation, Tom would like to work in the area of pest management, either in a forest or urban setting.

Karen Mahoney graduated, with distinction, under the ISU Honors Program with a double major in Forestry (Wood Products) and Ag Business. The Mason City native has traveled to South Africa as a Rotary Scholar where she worked for Bruply Sawmills. Karen has also worked for Weyerhaeuser in Mt. Pine, Arkansas, Tacoma, Wa., Jacksonville, N.C. and will return as a professional intern to Weyerhaeuser after graduating in Dec. 1983. While in school Karen was a member of Gamma Phi Beta Sorority, the Student Alumni Association, and Xi Sigma Pi Forestry Honorary.

Mark McCulloch will graduate in May 1984, with a B.S. in Forest Resource Management and a Pest Management minor. He is from Burlington, IA and was a carpenter for three years for Wausau Homes and was also a Forestry Technician with the I.A.A.P. Mark has been active in the ISU Karate Club, the Society of American Foresters, and the Forestry Club. He also enjoys weightlifting, golf, fishing, hunting, hiking, backpacking, carpentry work, working on cars, and collecting and shooting hand guns and rifles. Mark thought it would be especially nice to get a job after graduation.

Karen has also worked for Weyerhaeuser in Mt. Pine, Arkansas, Tacoma, Wa., Jacksonville, N.C. and will return as a professional intern to Weyerhaeuser after graduating in Dec. 1983. While in school Karen was a member of Gamma Phi Beta Sorority, the Student Alumni Association, and Xi Sigma Pi Forestry Honorary.

Davenport Iowa's Jeff Kern has been a busy man since coming to college. Aside from his grueling studies as a Forest Products major he has found time to participate in FPRs as co-chairman, in Forestry Club, SAF, GSB as a senator, Off Campus Association, ISU Dance Marathon, and a Summer Camp driver. With all of this, he still finds time for hobbies such as football, raquetteball, hunting, and golf. Jeff has worked as a Forestry Summer intern for the city of Davenport, as a Restaurant Weekend Manager, and on a USFS Fire Crew in California. After graduation, Jeff plans to work in industry.

Mark thought it would be especially nice to get a job after graduation.
Brian G. McGee is a Forest Products major specializing in Forest Management. He enjoys activities such as fishing, reading, hunting, traveling, and camping, but he also takes his studies seriously. His hard work has paid off—as he is a member of Xi Sigma Pi, Phi Kappa Phi, and Gamma Sigma Delta, and a former officer of FPRS. Not only is he a member of these esteemed organizations, he has also received honors such as the Milton Cone Award in 1982-83, the Iowa Hoo Hoo Award in 1981-82, the FPRS Book Award in 1982-83, and the Xi Sigma Pi Nat'l Scholarship in 1983-84. Brian worked for the Iowa State Nursery in Montrose, Iowa for the summer of 1983. After graduation, he plans to further his education by getting his Masters in Wood Physics at VPI.

Zolkipli Mohd-Aton plans to attend graduate school after obtaining his B.S. degree in Forest Management in May. His long range plan is to go home to Malaysia and work in an area where he can apply his Forestry knowledge. Before coming to ISU Zol worked in a variety of forestry related jobs, including timber research, conducting forest inventories, and working in a logging camp. While attending ISU Zol was a member of The Forestry Club, SAF, and The Assoc. of Malaysian Students at ISU. His extracurricular activities included table tennis, listening to music, hiking, and backpacking. Zol wishes to thank ISU for an enjoyable 2-1/2 years.

Tonga Nouwag is from Kuching, Malaysia and will receive a Forest Resource Management degree in May, 1984. He has gained work experience in Malaysia from April - June of 1980 with their State Forest Department. Tonga is a member of the Forestry Club and really enjoys fishing, soccer and camping. He also commented that he "loves Iowa State and the Ames community."

Robert Patton is a Forest Products major from Council Bluffs, Iowa. Bob was active in the Forest Products Research Society, Forestry Club, Sigma Chi (social fraternity), as well as being on the football and basketball cheersquads. Robert will live in Anaheim, California and work for Ganahl Lumber Co. after graduation in December, 1983.

Kevin Murphy is a Forest Management major with a Multiple Use specialization from Oelwein, Iowa. He has been involved with the Forestry Club while at ISU. Kevin has worked three summers as a Fire Fighter with the United States Forest Service in the Black Hills National Forest, and on a timber marking crew in the Black Hills last fall. After graduation, Kevin plans to return to the Black Hills and work for the US Forest Service for one more season before moving on.

Matt Pflug is a Fall '83 Resource Management graduate from Onawa, IA who spends his free time skiing, hunting, fishing and camping. Matt worked for Hertz's Farm Management and will spend time after graduation looking for a job.
Randy Reutzel is a Forest Products major from Northwood, Iowa. While attending ISU he was active in FPRS and The Forestry Club. Randy was the recipient of the prestigious knothead award several times during his years at ISU. He worked at the Iowa State Center during his college career, he also worked for Strautman Tree Farm in 1983-84, and for the Mt. Hood National Forest in Oregon during the summer of '83. After graduating in May, Randy plans on working in the Forest Products industry and in May of '85 plans to get married.

Scott A. Ridge is a Forest Products major from Fort Dodge, Iowa. Scott has had a variety of forestry experience. Ranging from timber management on the Thomas Ashford Scout Reservation to making particleboard for the ISU Forestry Department. Scott was a member of the Forest Products Research Society while attending ISU. After graduating in December, 1983 Scott plans on working in the composite products industry.

Sharna Robinson, a native of Ames, will graduate in May of 1984 with a degree in Forest Products, specializing in Wood Chemistry & Wood Science. She spent the summer of 1983 working as an urban forester in the city of Fort Dodge, Iowa. Sharna has been involved in the Forest Products Research Society (1982 chairperson), Forestry Club, ISU Swim Team, and various intramural sports. She received the FPRS Student Award in 1982 and the Hoo Hoo Club Award in 1983. Her hobbies include biking, reading, and outdoor activities. Sharna has accepted a management trainee position with Western Tar Products Corp. (a wood preservative plant) in Terre Haute, IN.

Maure A. Sand graduated from ISU in December, 1983 with a B.S. in Forest Recreation. Maure is originally from Fargo, N.D. and attended N.D. State before transferring to ISU. He has had the unique opportunity of working on a fire crew for the Superior Nat'l. Forest in northern Minnesota.

Kristi Struchen shows her interest in the great outdoors with her hobbies of backpacking and camping. She is a Forest Management major with a Multi-Use Forestry specialization. A member of the Society of American Foresters, Kristi has worked for two summers in the Medicine Bow Nat'l. Forest in Wyoming, and two years in the Forestry Lab. Kristi plans to leave her roots in Rockwell, Iowa to return to Medicine Bow Nat'l. Forest for seasonal work upon graduation.

Tom Symonette will receive a Forest Products degree in May 1984. He is currently the FPRS vice-president and received the FPRS student award in 1983. Tom has had 1 1/2 years experience with the Linn County Conservation Board as a Forestry Crew Leader and 2 summers with this conservation board as a maintenance worker. Tom enjoys fishing, hunting, duck decoy making, guitar playing, and cross-country skiing. He is from Cedar Rapids, Iowa and plans to go on to graduate school, here at ISU, for wood science research.
James (Tad) Tadlock, from Westfield, New Jersey, is a May graduate under the Forest Products option. While attending ISU Tad was active in several college organizations, among these were the Forestry Club, FPR'S, the Lacrosse Club, and the Soccer Club. Tad has gained valuable experience in the forest products industry while working seasonally for container Corporation of America out of Sioux City, Iowa. After graduation, Tad would like to work in a managerial aspect of the forest products industry.

Kirk Titus worked for the Howard County Weed Commission in 1980 and conducted street tree inventories for the City of Burlington in 1983. Kirk will obtain a Forest Mgt. degree with a Multiple Use Forestry emphasis. Kirk is from Cresco, Iowa and has been very active while at ISU. He was a member of the Forestry Club, SAF, was a sophomore Ag. representative, and the Harriman House Intramural chairman. Kirk especially likes to go camping and canoeing.

Terese Walsh will obtain her Forest Management degree with an area of specialization in biometry, in May, 1984. She is from Dubuque, Iowa and while at ISU, has participated in the Forestry Club, intramural sports, was co-editor of the 1983 Ames Forester, and was a Grappling girl for the ISU wrestling team. Terese also received the senior women's award and is a member of Xi Sigma Pi. Some of her hobbies include hacky-sack, sewing and canoeing. She worked for the USFS in the fall of 1981 and the summer of 1982 in Heppner, Oregon, and worked in the Black Hills during the summer of '83. Her post-graduation plans include attending graduate school at V.P.I. with a research assistancehip. Terese also stated that she has her own hydrology theory: "when it rains it pours!"

David A. Wormley is a management major who enjoys hunting, trapping and Tae Kwon Do. David was secretary of the Forestry Club and a member of SAF. He worked as an Intern for the North Central Forest Experiment Station Plant Pathology unit, for one summer. David, from Council Bluffs, plans to do "work, work, and do more work," after graduation in December 1983.

Barbara Zylstra is a native of Sioux Falls, South Dakota majoring in Forest Management. She is active in Forestry Club, Society of American Foresters, and was VEISHEA Committee Chairman. Her hobbies include tennis, swimming, and horseback riding. After graduating in May, 1984, Barb plans on working in the Spearfish District of the Black Hills National Forest, Spearfish, SD.

Our graduates are qualified in: Products, Management, and Recreation.

If you plan to hire, contact:

Fred S. Hopkins, Jr.
Steven E. Jungst
Bessey Hall, ISU
Ames, Iowa 50011
FOREST UNDERGRADUATES

FRESHMEN

Mark Burns  
Keokuk, IA
Michael Channing  
Slater, IA
Eric Dahle  
Emmons, MN
Larry Desmet  
Davenport, IA
Darla Forbes  
Buckingham, IA
Bill Hanley  
Omaha, NE
Frank Heisner  
Mt. Pleasant, IA
Sharon Houar  
Cedar Rapids, IA
Kevin Johnson  
Ft. Dodge, IA
Kris Johnson  
Audubon, IA
Scott Johnson  
Ames, IA
Shawn Jones  
Kalona, IA
Patrick Linderman  
Des Moines, IA
Mike Livingston  
Sioux City, IA
Jon McKay  
Oskaloosa, IA
Thomas McKeegan  
Elmhurst, IL
Keith Mousel  
Alton, IA
Charles Page  
Council Bluffs, IA
Mark Petersen  
Exira, IA
Eric Pugh  
Lake View, IA
Joseph Russell  
Iowa City, IA
David Sanfilippo  
Dundee, IA
Cynthia Snyder  
Buffalo, IA
David Thompson  
Davenport, IA
Martin Wimmer  
Council Bluffs, IA
Craig Woodley  
Muscatine, IA
Lori Zipse  
New Hampton, IA

SOPHOMORES

Michelle Cram  
Iowa City, IA
Bill Davis  
Brecksville, OH
Mark Dunagan  
West Des Moines, IA
Gregg Engelken  
New Vienna, IA
Mark Harger  
Mt. Vernon, IA
Jon Havens  
Iowa Falls, IA
Franklin McKinney  
Bettendorf, IA
Mark Mikutis  
Newton, IA
Frederica Mojilis  
Sabah Malaysia
Steven Paulson  
Weston, CT
Janel Peterson  
Davis, IL
Sarah Selig  
Columbus, NE
Randall Hefel  
Dubuque, IA
Teri Lea Hinman  
Des Moines, IA
Brian Jones  
Ames, IA
Doug Kelly  
Lamoni, IA
C. A. Lane  
Humboldt, IA
David Lang  
Atlantic, IA
Christopher Larkin  
Lansing, IA
Troy Vallier  
Crescent, IA
Scott Weber  
Cresco, IA
Timothy Welter  
Waterloo, IA
Matthew Wicks  
Ankeny, IA
James Wise  
Spencer, IA
Vikram Yadama  
Bangkok, Thailand
Juniors

Charlene Berry  
Tiverton, RI

Charlene Berting  
West Des Moines, IA

Michael Bruen  
Bettendorf, IA

Peter Cyr  
Ames, IA

James Daniels  
Guthrie Center, IA

Eileen Drees  
Mapleton, IA

John Flitch  
Rock Island, IL

Ahmad Haji Zulkepli  
Sandakan Sabah Malaysia

Craig Johnson  
Lombard, IL

Barbara King  
Davenport, IA

Debra Knickrehm  
Walcott, IA

Eli Luhat  
Kuching Sarawak Malaysia

Eric Main  
Libertyville, IL

Joan Montgomery  
Arlington Heights, IL

Mohd. Jaafar Nyiro  
Sandakan Sabah Malaysia

John Poortinga  
Slater, IA

Juniors

John Gleason  
Omaha, NE

Michael Goodchild  
Mallard, IA

Julie Goodspeed  
Iowa City, IA

Linda Haefner Haugen  
Lansing, IA

Nick Hayes  
Franklin, OH

W. Math Heinzel  
Ames, IA

Bryan Humphrey  
Cardington, OH

Richard Johnson  
Davenport, IA

Jeff Kern  
Davenport, IA

Amy Lippitt  
Rockford, IL

Thomas Lynch  
Waterloo, IA

Mark McCulloch  
Burlington, IA

Brian McGee  
Fort Madison, IA

Zol Mohd-Aton  
Kuching Sarawak Malaysia

Kevin Murphy  
Oelwein, IA

Mike Norris  
Shenandoah, IA

Tonga Noweg  
Kuching Sarawak Malaysia

Kenneth Reese  
Northwood, IA

Seniors

Rochelle Aldinger  
Iowa Falls, IA

Curt Bader  
Bloomfield, IA

Janet Beall  
Ames, IA

LaVerne Bown  
Reinbeck, IA

Randall Byrd  
Bellevue, IA

James Cain  
Anamosa, IA

Theresa Callery  
Lisle, IL

Catherine Carr  
Greenfield, IA

Randy Clark  
Jewell, IA

Maureen Connolly  
Urbandale, IA

Carolyn Coyne  
Bettendorf, IA

Jerry Day  
Lineville, IA

Carol Duff  
Council Bluffs, IA

Jay Eason  
Clear Lake, IA

Pam Eggerss  
Shelby, IA

Ken Fouts  
Dunlap, IA

Frank Gerken  
Des Moines, IA

Suzanne Gillet  
Corning, IA

Jane Riesberg  
Carroll, IA

Eugene Rilling  
Fort Atkinson, IA

Nancy Roys  
Waukon, IA

Rae Schepers  
Muscatine, IA

Frances Stricklin  
Mocksville, NC

Mark Vavroch  
Toledo, IA

Jeff Waterhouse  
Eldora, IA

Kevin Wittry  
Breda, IA

Randy Reutzel  
Northwood, IA

Steven Rick  
Des Moines, IA

Sharna Robinson  
Ames, IA

Doug Rubel  
Grimes, IA

Dora Schrod  
Des Moines, IA

Marty Schroeder  
Villisca, IA

Brien Schumacher  
LeMars, IA

Kristi Struchen  
Rockford, IA

Tom Symonette  
Cedar Rapids, IA

James Tadlock  
Westfield, NJ

Kirk Titus  
Cresco, IA

Terese Walsh  
Dubuque, IA

Barbara Zylastra  
Sioux Falls, SD