

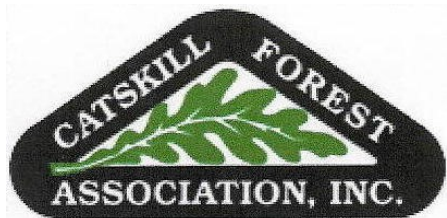
CFA News

The Newsletter of the Catskill Forest Association, Inc.
Volume 26, Number 2 - Spring 2008



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CFA News
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Subscriptions: *CFA News* is mailed quarterly to members of the Catskill Forest Association. If you are interested in joining CFA, give us a call or visit our office. Contact information is located above. Please submit address changes to Michele at the address above.

Cover Photo: *The emerging "leaves" (needles) of the deciduous conifer, European Larch or Tamarack (*Larix decidua*). CFA receives calls every year from people asking why the "pine" trees are dying. It loses its needles every year and grows them back the next. This tree was widely planted and has now become naturalized. It is non-native, but like Norway spruce is not invasive. (Photo taken by Ryan Trapani.)*

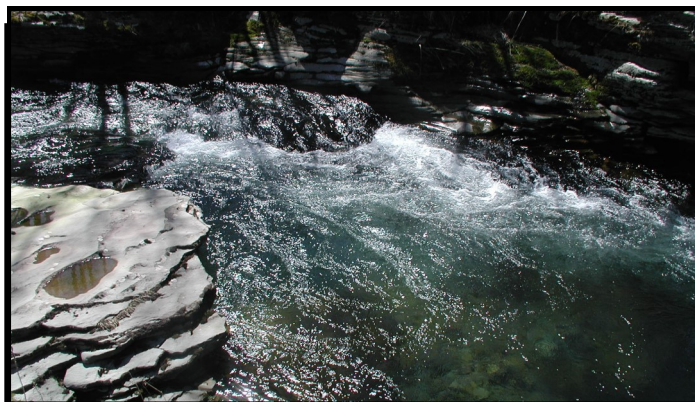


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WELCOME NEW MEMBERS!

2008

January

Metnick Law Office - Margaretville
Lauren Davis – Margaretville
Timothy Knotts - Roxbury
John Duncan Monroe & Family – Andes
Anthony Ix - Margaretville

February

Hartwill Cornelius - Thompsons
John Schluep - Oneonta
Ramsey Adams Catskill Mountain Keepers
Charles Pollack – Davenport

March

Barbara Sawko & Stephen Cook - Arkville
William & Marlene Feldman – Andes
Mary Lynne Hansen-Hise – Hopewell Junction
Whitney Hall – Hurley
John Tsampas – Margaretville

EXECUTIVE DIRECTOR'S MESSAGE

Well, spring did arrive again and the trees' flowers are beautiful. I am seeing much less evidence of the forest tent caterpillar this year, but am still seeing a lot of the eastern tent caterpillar. (Those are the ones that make the large white tents in the cherry and apple trees.) Wait until the hot part of the day or during rain, when they congregate in their tents, then pull the tent down and put it in a bucket of soapy water.

There is a lot going on with all of this green talk that may effect forest landowners in the future -- from the gas rush to carbon sequestration -- from invasive plants and insects to outdoor wood furnaces. Not to mention the economic turns we are taking now that may cause people to look into turning their trees into cash (perhaps prematurely). There are practically no markets at all for some species and the poor quality trees and a very depressed market for sawlogs. Some landowners might go ahead and cut anyways by cutting the highest quality logs for mostly export markets and leaving everything else. This is called high-grading and has been the degradation of many of the Catskill's forests. Many foresters are recommending holding off on harvesting right now and performing thinning operations instead. This requires an investment today for producing much

more income in the future. If you are considering harvesting be sure to talk it over with a forester and give CFA a call for hints and impartial advice.

At this year's **ANNUAL MEETING**, on Sept. 13th, we will be hearing from two experts on Carbon Sequestration and how Carbon Credits might be used as an additional income source. Believe me that the jury is still out on the Carbon credit thing. There's a lot of science that needs to be completed, but emotions and speculation are now the driving forces. Be sure to join us for this meeting. (You must pre-register by Sept. 1st.) A new thing this year - Any new member that signs up between May 15, 2008 and Sept. 1, 2008 will be able to attend the annual meeting at a discount! (See the calendar of events for details. Also, check out all the events and workshops planned for 2008 -- we'd like to see you this year!

Naturally,

Jim Waters



Contribute \$50 in the memory of someone that you have lost and CFA will plant a cedar tree making a hedge along this unsightly border. A plaque will be made up to place inside the entrance to the building with their names.



MFO TRAINING OPPORTUNITY

CCE of Greene County will be hosting a new Master Forest Owner volunteer training at the Agroforestry Resource Center <http://arc.cce.cornell.edu/> in Acra, NY. The program will run from Thurs. morning June 5th, through Sunday noon the 8th. The agenda will be very similar to our standard training <http://www.dnr.cornell.edu/ext/mfo/2007%20training/index.html>, but with a bit of a regional twist with regional presenters. Cost will be \$75 per attendee and will include board, supplies, and information handouts, but not room. There is a motel (Lange's Grove Side Resort 518-622-3393) within easy walking distance. For more information about applying, call Marilyn Wyman at 518-622-9820 ext. 36.

5-foot TREE TUBES available for only \$2.00 each -- (normally \$4) While Inventory Lasts!

Provide shelter from deer and lawn-mowers, in addition to speeding up growth. You can



pick-up your tree shelters at our office.
(Regular price = \$4 each)

Article 2: Non-Human Factors that Affect Your Sap Flow

This is part of a series of articles that will be dedicated to informing and educating local Sugarmakers of the Catskills. Local Sugarmakers consist of both commercial and backyard producers. Topics that will be included in this series include Factors that Affect Sap Flow, Healthy and Productive Tapping Techniques, Stand Structure, Species Composition of Maple Stands, Stand Tending, and other tricks of the trade.....Stay tuned!



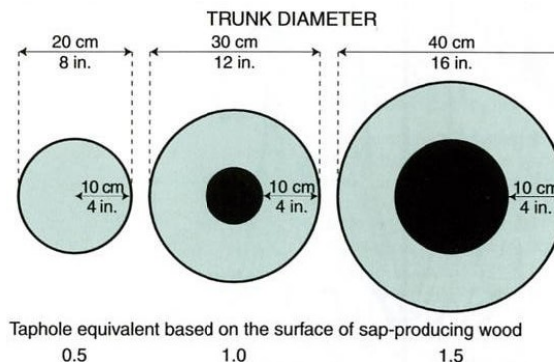
Ken Berger's Sugar Shack in Delaware County.

Like any other crop grown agriculturally, sugar maple must be able to tolerate a diverse array of stressors, while competing with neighboring vegetation for soil, water, and nutrients. Under ideal conditions and limited stress, a healthy crop of sugar maples will result in increased yields of sweeter sap. The factors which create a fertile site or an infertile site include both abiotic (non-living), and biotic (living) entities. These factors include: growth, competition, soil, climatic factors, and pests such as insects, diseases, and squirrels.

Growth is the most important factor in determining the yield of sap flow. Growth is determined mostly by the rate of photosynthesis, and how efficiently carbohydrates are made from the process and used in the synthesis of making wood fiber. Trees prioritize where energy is allocated throughout their structure. After meeting leaf, root and bud development and maintenance requirements, energy or carbohydrates are used in diameter growth of the trunk. The importance in having a faster growing trunk is highly beneficial to maple producers for three reasons. (1) A faster growing tree will reach minimum tappable size sooner. Trees should be at least 10" at diameter breast height (DBH). (2) A faster growing tree will create larger wood fiber vessels which will enhance sucrose or sugar storage. (3) Larger diameter

stems that include more sapwood will be able to conduct more sap. See Figure 1.

Figure 1 Theoretical yield of a tap-hole based on the volume of sap-producing wood (pale section)



Source: Conseil des productions végétales du Québec.

Notice in Figure 1 that a tree at 12" DBH will theoretically yield twice as much sap as a tree 8" DBH. A tree 16" DBH will yield 3 times more sap than a tree 8" DBH. This would mean that 2,000 taps consisting of 12" DBH trees would equate to 4,000 taps of 8" DBH trees! In other words, diameter makes a big difference simply because there is more room for sap to be stored in.

Competition is another factor that influences sap yield, and more importantly growth. Trees compete for light, water and nutrients with each other. However, their greatest limiting factor in enhancing growth is light. Trees that receive the most light will have the greatest growth. For example: A tree that has been suppressed or shaded from competition for 2 growing seasons will have approximately 3 times less DBH, and will be approximately 3.5 times shorter in height. Suppressed trees therefore result in less sap yield and less sugar content because rates of photosynthesis are far less.

Soil is also very important. Sugar maples are particularly site selective. They prefer soils which are well drained and contain a coarse structure. Sugar maple is usually found on the most fertile soil conditions. Early settlers sought out sugar maple in choosing suitable sites for growing more traditional agricultural crops. These sites are usually rich in nitrogen, phosphorus, calcium, magnesium, and potassium. Nitrogen is the most critical nutrient used by trees and is usually found in the least supply. In order to test a site's soil fertility, an analysis should be conducted by an expert through leaf and soil study.

Climatic factors such as temperature, rainfall, and wind can greatly affect both the sweetness of sap and the quantity. As mentioned in the last article, temperature fluctuations consisting of freezing nights followed by above freezing days create optimum conditions for sap flow. Divergence from these fluctua-

tions creates less sap flow. Rainfall is also very important. Too little rain especially during the summer months can result in a drought and can lead to a breakdown in photosynthesis. Photosynthesis not only requires sunlight, but also lots of water. Lastly, high winds can lead to broken limbs and branches that provide more access for insects, disease and other pathogens to enter the tree.

Insects, diseases, and even squirrels can play a large part in sap yield also. Insects and diseases can result in stressed trees with reduced vigor and ultimately less sap yield. Defoliators pose a great problem to sap yield and sugar content because they consume the leaves. Leaves are the solar panels of the tree and predetermine sugar content in the spring through carbohydrate production by photosynthesis as mentioned earlier. Common defoliators include the forest tent caterpillar (see *Figure 2*), Bruce spanworm, and the fall cankerworm. Other insects, such as the maple borer, chew into and throughout the trunk leaving more access for pathogens and other insects to enter. Fungi such as *Eutypella* and *Nectria* canker (see *Figures 3 & 4*) spread by spores and can infect many maple trees. Squirrels can serve as a significant nuisance in sugarbushes. Although they do not influence sap flow, they can influence the sap collection system such as in tubing. Squirrel damage to tubing usually is greatest when there is a large maple seed year followed by a poor one. Squirrel populations grow during the high seed production, but then are left starving the next year when there is a poor seed production. Hungry squirrels then are more susceptible to chewing on tubing systems.

Figure 2 Forest Tent Caterpillar

Figure 3 Eutypella Canker



The
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favorable climatic conditions, and that are growing on fertile, well drained soil with little competition will experience the most growth. Faster and more growth will boil down to literally more syrup into your pan that can be sold as a pure product, or consumed deliciously at your table. Trees that are grown on unfavorable sites are more susceptible to insects and diseases. Sugar maple may be a special crop that far outlives us, but is still one that demands good growing conditions. Articles in the future will discuss how some of these factors can be managed more wisely by producers.

Information provided by *Association des propriétaires de boisés de la Beauce*.

Figure 4 Nectria Canker



Attention Sugarmakers

If you would like to submit an article about something you would like to share that is related to your maple syrup production, please call CFA and let us know. Article topics may vary from fun maple stories, anecdotes and production levels to sugarbush and evaporator management. Also, any producers who would like to advertise their maple products and/or supplies should also call our office. Help us promote a forest product and keep our working forest while promoting you... the producer.

Calendar of Events For 2008



(May 17th, 9am-12pm): Firewood/Wood Furnace Workshop (*Mountain Flame, Central Boiler & Hawken*) — The winter is over, but it will return. Be prepared and harvest or purchase your firewood now so that it will be properly seasoned and ready to go. We will cover harvesting techniques, species ratings, transportation, processing, and heating techniques with firewood. Outdoor wood furnace & fireplace distributors will also be available for information and advice. To pre-register or for more information give us a call @ (845) 586-3054.



(May 24th, 9am-3pm): Fleischmanns Fair, Fleischmanns Museum & Library — Fair/Festival. CFA will be



(May 25th, 10am-5pm): Hanford Mills ("Saw-It-Day") — Explore over 200 years of sawing & lumber history and comes to life - human-powered pit sawing, a water-powered circular sawmill, and a modern gasoline-powered portable band saw will be in operation. Watch demonstrations, explore the forest, enjoy traditional music and a variety of family activities. For more information give us a call @ (845) 586-3054.



(May 31st, 9am-12pm): Woodlot Management Workshop Hanford Mills — Learn the basics about managing a woodlot. Topics will include tree identification, basic steps in forest management, forest health, and tree selection for enhanced production. To pre-register or for more information give us a call @ (845) 586-3054.



(June 7th, 9am-12pm): Orienteering Workshop — Geographic Position Systems (GPS) are expensive and can be unreliable. The hand-compass is a proven technology that is thousands of years old. When learned it is extremely accurate, self-sufficient and a great way to navigate yourself near and far. Learn this ancient skill for yourself. To pre-register or for more information give us a call @ (845) 586-3054.



(June 14th/15th, 10am-5pm): CFA @ Meredith Dairy Festival — CFA will be attending the Festival located in the town of Meredith and passing out forestry information. CFA will also be giving tree identification walks nearby each day. Learn some of the names of our trees and how to identify them. For more information give us a call @ (845) 586-3054.



(July 12th, 9am-12pm): Pond Management Workshop — Thinking about building your own pond? Join CFA and learn from another property owner about how they built their ponds. To pre-register or for more information give us a call @ (845) 586-3054.

(July 19th): Deposit Lumberjack Festival — Festival/Fair



(July 26th, 9am-12pm): Log-Home Building Workshop — Did you ever want to know how a log home is built? Come see for yourself how one Forest Landowner is using locally grown logs to build his house. To pre-register or for more information give us a call @ (845) 586-3054.



(August 8th, 9am-12pm): Forest Management Woodwalk — See how one private landowner manages their forested property. Topics will include crop tree management, tree planting, and firewood removal. Also, see how you can make your own lumber from the forest you manage. An on-site demonstration of a portable woodmizer will be included at the end of the walk. To pre-register or for more information give us a call @ (845) 586-3054.



(August 5th–8th): Northeastern Teachers Forestry Tour — Teacher Education — Teachers — Call us now to see how you might take part! (845) 586-3054.



(August 12th–16th): CFA @ Delaware County Fair — Festival/Fair



(August 15th–17th): CFA @ Grahamsville Fair — Festival/Fair



(August 23rd): CFA @ Margaretville Street Fair — Festival/Fair



(September 6th, 9am-12pm): Wildlife Management Workshop — Learn about the diverse types of habitat wildlife uses. Join CFA at one of our member's property and see how they manage for wildlife. To pre-register or for more information give us a call @ (845) 586-3054.



(August 27th): CFA @ Cauliflower Festival in Margaretville — Festival/Fair



(September 13th): CFA's Annual Meeting -- Carbon Sequestration and Credits will be the topic along with our short business meeting, delicious food, and the annual auction. From 10:00am to 3:00 pm, location TBA. \$35 per person. **New members signing up between May 15th and Sept. 1st may attend for just \$20.00!** (Pre-register by Sept. 1st.)



(October 4th, 10am-12pm): **Apple Tree Pruning and Cider Making** — Pruning dead and dying limbs can help a tree more efficiently allocate the sun's energy to growing a healthier fruit-bearing organism... and tasty apples! The first half will cover pruning while in the second half we will reap the benefits of our pruning by enjoying a refreshing drink of freshly made apple cider! Check out our website at www.catskillforest.org for a current listing of the 2008 Events!



Farm the Best, Buffer the Rest -- A Look at CRP Funding



Tree tubes were used to protect the young trees from deer and mowers.

On Thursday, April 10th CFA visited the farm of Lauren Davis in the Village of Margaretville. Mr. Davis invited CFA's Education Forester to see his tree planting project to restore his riparian area along the East Branch Delaware River. Mr. Davis's property consists mostly of hayfield and rich bottomland soil that frequently undergoes flooding, and pollution from the spread of manure and/or pesticides.

In order to help mitigate soil erosion and pollutant emissions into the stream, Mr. Davis has enrolled into the Conservation Reserve Program (CRP). The Conservation Reserve Program is a program that is administered by the United States Department of Agriculture (USDA) Farm Service Agency (FSA). The FSA designed the CRP program for the purpose of restoring riparian forest buffer lands in order to enhance water quality. What are riparian lands you ask? A riparian area is a 3-dimensional ecotone of interaction that includes the terrestrial & aquatic ecosystems that extends down into the groundwater, up above the canopy, outward across the floodplain, up the near slopes that drain to the water, laterally into the terrestrial ecosystem, and along the water course at a variable width. In simpler words, riparian areas are the areas immediately adjacent to bodies of water that can serve as a filter for anything that may make its way into the water. Forests in these areas provide a healthy link between land and water because they significantly influence the flow of material, energy, and nutrients between the two. These links can be referred to as *Ecological Services*.

Ecological Services provided by forests include:

- Healthy water yield and peak flows within streams
- Nutrient, sediment and organic matter regulation
- Habitat
- Water temperature regulation

The CRP program administered by the FSA provides voluntary incentives to private landowners to help restore these riparian areas. CRP

awardees are paid 50% of the cost of improving the buffer land. In Mr. Davis's case the other 50% of the cost was funded by the New York City Department of Environmental Protection (NYC DEP) through the Watershed Agricultural Council (WAC) since his property lies in the New York City watershed. However, for landowners who do not lie within the New York City watershed there are other ways to help cover the expenses incurred by the program. The *Practice Incentive Payment* program can help pay 40% more, leaving just 10% of the cost left to the landowner.

So, who is eligible? Landowners that are considered to be eligible for CRP funding are those that own active crop land or pasture land that are deemed to have environmental impacts on a riparian area. Examples of impacts include excessive nutrient inputs from spreading manure, sediment runoff, and herbicide/pesticide inputs. Landowners need not be assessed as agricultural land by the town or gross \$10,000 from any agricultural management as many other programs require. In Mr. Davis's case, he was awarded funding because of a history of manure runoff from his hayfield and a lack of trees and shrubs of a certain width buffering the stream along his property.

While the FSA administers the program, the Natural Resources Conservation Service (NRCS) carries out the technical work. NRCS conducts on-site visits to properties to assess the benefit/cost of restoring a riparian buffer strip. If approved, FSA essentially rents the land to be buffered or restored from the landowner and pays an annual rent payment to the landowner to cover any management action and maintenance.

In some cases, the restoration may involve first removing any livestock from the area by fencing and then planting appropriate riparian tree and shrub species. Typically, the most expensive cost is paying a farmer for an alternative watering system for livestock that are effectively removed from their former drinking supply. In Mr. Davis's case, there were no livestock to fence out. Instead there were inadequate trees and shrubs in the buffer corridor for filtering excessive nutrients and sediment. He was paid \$100/acre and 1,700 trees and shrubs were planted. Trees that were vulnerable to deer browse were protected by tree shelters. The tree species planted were sycamore, larch, bur oak, pin oak, and black walnut. Shrubs planted were nannyberry, and buttonbush. The planting operations were put out to bid and supervised by the NRCS.

The CRP program like any government funded program is limited by funding levels available and involves caps for individual projects. For tree planting, caps on funding are \$2,000/acre, which are more than adequate for most projects. If you are a landowner who has land that has been used historically or is being used as crop land or pasture land that is adjacent to a stream or body of water, you may be eligible for CRP funding. Contact CFA or your local FSA or NRCS for more information.



A mechanical tree planter at Mr. Davis's.



Member Showcase: Mark Kugler



Mark with a tractor that he has refurbished.

On Friday April 4th, CFA went on an on-site visit at the property of Mr. Mark Kugler in the town of Halcott. Mr. Kugler owns over 100 acres consisting of hayfields, forests, pond, restored barn, chicken coop and a house up on the hill. Although he is retired from being a fireman officially, his property keeps him plenty busy with work to do. Last March, Mark disappeared from the house and spent the days away boiling away sap into 12 gallons of syrup! However, if it's not making maple syrup, then Mark finds something else to do. He keeps goats, chickens and two dogs to help keep the former together. Fresh eggs and maple syrup don't sound too bad! Mark also is restoring some old farm equipment that has been resting outside for the last 30 or so years. He's already got one McCormick International Mower put together, oiled up and ready to go.

In addition to tending goats, chickens and old rusty farm equipment, Mark wanted to cultivate the big garden around the house. Only this garden is much larger than a traditional one containing annuals of tomatoes, potatoes and carrots, but instead American beech, sugar maple, red maple, red oak, and hop-hornbeam. Since most of Mark's property is forested, and not too steep, he saw it as a great way to harvest local fuelwood for his Outdoor Wood Boiler. Mark's Outdoor Wood Boiler is a furnace detached from the house that heats water by burning firewood. The heated water heats his entire house and hot-water system. Before choosing which trees to remove, Mark thought he'd first call CFA and schedule an *On-Site Visit* with one of their Foresters.

On the Visit he and CFA's Education Forester Ryan Trapani walked the property and marked trees to be removed for firewood. Firewood is a great way for Forest Owners to tend their crop of trees just as in a traditional garden. Trees that are competing with crop trees are selected for removal to be used as firewood or left dead and downed on the forest floor to provide nutrient inputs, wildlife habitat, and seedling protection from browsers (deer). Crop trees are those that are healthy, straight, and free of dead and dying branches, fun-

gus, rot, and disease. Any tree whose crown is within 3 to 4 feet or touching the crop tree's crown is considered to be in competition and limiting the growth of the crop tree. By removing competitors, the Forest Owner is allowing more sunlight to shine onto the crop tree's crown. This sunlight helps the tree to grow faster, healthier and more vigorously. A tree receiving plenty of sunlight is able to manufacture more carbohydrates that can be used towards warding off insects and disease, producing more nuts and berries for wildlife, root and crown growth/maintenance, and fiber growth in the form of wood.

In this way, when firewood is harvested properly on one's property many management goals and objectives can be met simultaneously. By removing less desirable and competing vegetation for a local energy source such as for fuelwood, Mr. Kugler is also managing for a future crop of high-quality sawtimber. Sawtimber can be used for his own building, or sold to a timber buyer.

The sale of timber, not only provides society with a local fiber source to provide jobs and help the economy, but also helps the family retain the farm and forest for their children and subsequent generations. This type of stewardship helps to maintain a strong and sustainable community. In addition, the next time we experience a Forest Tent Caterpillar outbreak, Mark's trees will be more ready to cope with the defoliation since they will be healthier having had plenty of sunlight beforehand.

On Mark's property there were an abundance of diseased American beech trees to pick from. In the Catskills 98-99% of American beech is infected by a disease called Beech Bark Disease. We did manage to find the 1% or 1 beech tree that was perfectly healthy and made sure to leave it there where it will serve as a seed source for, hopefully, perpetuating other healthy beech trees.

Since Mark is a deer hunter we talked about removing firewood in one section that would create a small wildlife clearing. This clearing would have to be at least 2½ times wide as the height of the adjacent trees to allow enough sunlight for a variety of seedlings, shrubs, grasses and other herbaceous growth to grow. The young vegetation that will surely develop after creating the opening (patch clear-cut) will serve as food and cover for many types of wildlife.

Back at the house, up on the hill, Mark is beginning another project with wind. He wants to harvest the wind and use it for electricity as well. It certainly seemed windy enough on the day of our visit! Between the wind, firewood, chickens, goats, maple syrup and farm revival, Mr. Kugler seems hardly retired.

The GAS rush!

(They can pay large dividends, but seller beware!)



Drilling Rig

Natural gas exploration and use is not new, however, being able to economically extract it from far under the earth's surface is. It started about five or six years ago in Texas with successful drilling efforts that have so far resulted in extracting more than 3 billion cubic feet per day from the Barnett Shale formation. That's over a trillion cubic feet per year! Putting that into perspective, the entire country produces about 19 trillion cubic feet per year now.

Gas exploration in New York started in 2005 with the Trenton-Black River play (find). More recently the "rush" has now expanded in New York due to a 54,000 square mile piece of thick black rock called the Marcellus Shale. It is about 6,000 feet underground covering New York, Pennsylvania, Eastern Ohio and most of West Virginia. It is also more than twice the size of the Barnett formation. Scientists have known about this play for some time, however, it is only now that deeper extractions have been made possible. Drilling has started in Pennsylvania by a firm from Texas by the name of Range Resources Corporation which has almost 5,000 wells drilled and two of those are producing over 1.5 billion cubic feet per year. Three more have tested to possibly produce another 3 billion cubic feet per year. It is estimated that the Marcellus Shale contains as much as 50 trillion cubic feet of gas or 25% of the nation's total reserves! Sounds exciting, doesn't it? But it is really too early to determine how successful this play could be.

The drilling begins with a vertical well, then ends with a very expensively drilled horizontal well. This is where the new technology has helped. These horizontal wells can cost as much as \$3 million to drill.

We are starting to hear from companies that want to tie up the oil and gas rights from us. Whenever there is a lot of money that might be made, you will find all kinds of people out there looking for the best deals from uninformed people.

That is why, just as in a timber sale or an easement sale the property owner must be careful and become educated by getting professional advice PRIOR TO SIGNING ANY AGREEMENTS! The one put in front of you is a good starting point for negotiations to begin.

SOME GUIDELINES:

1. Bonus Payment-- this is the up-front cash incentive that you receive if you sign their contract the way it is. (This is not as important as the Royalties you may receive later.) Sometimes this is in the form of a monthly or annual rental payment and sometimes, if they are delayed, they will have a delay rental payment schedule. Usually the rental payments stop when royalty payments begin. I have seen bonuses ranging from, low-balls of \$120 per acre to \$1,850 per acre being offered to CFA members. I have heard from other sources that in PA's and NY's southern tier the bonuses range from \$1,000 to \$3,000 per acre depending where the property is. One property in Chemung County was paid \$10,000 per acre. In Texas the rates have been as high as \$30,000 per acre. Does this remind you of the ranges that you might find between different loggers that knock on your door to make an offer you can't refuse, and that is "fair" and better than the industry norm?

2. Royalties -- this is the portion that you will receive if the company drills a producing well under your property. Most companies will make an offer of 1/8th or 12.5 % of the net proceeds. They will tell you this is the industry norm and the most they can afford. Well, rates have been negotiated as high as 18 to 20% in northern PA and as high as 26.5% in Texas. The net proceeds are the gross proceeds less their costs. Ask how the value of production is determined and what costs may be subtracted before the rate of the royalty is applied. These costs are out of your control and may not be easily reconciled. You should try to get as high a rate as you can on the gross proceeds. Companies will go along with this if you pressure them.

3. Description -- Is the entire parcel included? Are the rental payments or bonus rates only for part of your parcel? Make sure the description is accurate and the payment terms are as well.

4. Lease Period -- Most are for an initial period of 8 to 10 years, but they usually have a clause granting an automatic extension if they are still producing or storing gas. I think it would be better to replace this clause with one that provides you the opportunity to renegotiate the terms in the lease at the end of that period.

5. Level of Use -- Be sure it is clearly written in the lease what level of use you are agreeing to: On the surface, is it just exploration with tracked or wheeled equipment and use of small explosives, or is it movement or construction of drilling rigs, land grading of several acres, road construction, temporary buildings, equipment storage, wellhead placement, parking or work site activity for personnel? Are they going to be able to cut & remove trees or disturb agricultural land?

The leases I have seen give all of the above rights and more automatically. Landowners can control the surface activity and can make stipulations in the contract for anything from distance from structures to payment for the removal of trees and on and on.....just as in a timber contract.

6. Gas Storage -- Since storage is done underground, it does not effect the landowner much. This is a totally separate operation and is used to increase revenues by timing the availability of the gas to winter periods. Sometimes storage is done by a different company. Your site may not be producing gas, but lend itself to storage. There would not be any royalties associated with this. You should consider dealing with this at a later period with a separate agreement to increase your revenues. Likewise you may want to deal separately for any pipelines involved.

7. Lease Expiration -- If production stops or the operator fails to produce any gas in the stipulated period, make sure the ownership of wells and equipment remaining is clearly stated and that the well is properly capped and site is returned to its original condition.

8. Indemnification & Insurance -- Just as in the logging contract make sure there is an indemnification clause to hold you harmless from all claims, demands and legal problems. Also require the operator to carry liability insurance with you named as an additional insured to protect you from environmental law violations and interference with neighbors' wells, etc.

9. Company You're Dealing With -- Many times the person approaching you is a speculator or middle-man and will buy up these rights then package them and sell them at a higher rate to the company that eventually does the drilling. You should know who you are dealing with. Check and see if they are registered as an operator with the DEC. Ask them who they are representing and how you can contact the company to verify that they are working for them. Are there any violations that their company has? Make sure you negotiate a clause that makes it impossible to transfer the rights without your written permission so that you might renegotiate the terms.

10. Property Taxes -- Oil & Gas and any equipment used for the extraction and collection of oil & gas is part of the taxable economic unit. Therefore, if the rights are transferred to another party, the taxable portion of those rights will be assessed to the operator and not the landowner. However, you might face a higher assessment due to exploration and drilling. You should check with your local assessor on this prior to signing a lease.

11. Income Taxes -- All income from oil & gas is treated as normal income by the IRS and are payable during the year of receipt. However, net royalty income is reduced by the greater of a cost basis deduction or a percentage depletion allowance. Check with a tax accountant for the best way of handling the anticipated income.

All payments and stipulations included in a contract are related to how close or far the property is from the anticipated deposit. You may want to research this on your own to fully understand what you might be able to negotiate. Prices are also dependent on parcel size. Generally the larger the parcel, the better it is for the landowner.



Drying process at well head.

Just as in a logging contract, the amount you are paid is directly related to the restrictions you include. Putting too many restrictions can limit your potential income and if too cumbersome, become a deal breaker. It's a balancing act that should be carefully orchestrated, with negotiation savvy, research and an attorney. Look at every clause in the contract and make sure you understand the consequences of each and every statement. The lease might also represent a lien on the property, requiring more legal work during transfers, mortgages or attempts to borrow against the value of the property.

If no lease is signed and the parcel is pooled under compulsory integration, prices paid for royalties is determined through a hearing process. They are typically very close to the 12.5% rate. They can not force you to give them access above the ground, for storage or for transportation of the gas - only the right to drill under your property from adjacent properties. Eminent domain can not be used.

There are many other things to think about in your negotiations, but this is a good start. There are lots of resources out there on the web. There are also landowner coalitions around that are benefiting from sharing legal and tax advice costs and bidding their lands to increase their leverage. It may be wise to contact one of those already started. One such organization has been set up in the Upper Delaware River Valley region called the Sullivan-Delaware Property Owners Association.

Check out this link for lots of help! --

http://www.pagaslease.com/directory_public.php



Mike's Corner: Observations by a Forest Historian -- (Part 2 of a Series)

"Shin Creek Mountain"

Let's begin this new series of articles with two hikes – one hike per *CFA News* issue – with CFA's Education Forster, Ryan Trapani. These hikes are not only representative of the dozens which I have made in 2007, but are superior because having Ryan along adds so much to the richness and depth of the observations.

Our first hike, on the morning of August 31st, was on a nameless 2851-foot peak which I have dubbed "Shin Creek Mountain". It can be found on the Arena 7.5-minute topographic quadrangle at latitude 42 degrees 01 minute and longitude 74 degrees 43 minutes, south of the Beaverkill but north of Shin Creek.

In 2006, I had climbed "Shin Creek Mountain" from the west, and to my surprise, found the shoulder and summit to be in first growth, i.e., it seemed as there never had been any cutting here. The first growth continued down the east shoulder and I had to return in 2007 to see just how far down it went.

Ryan and I climbed up the east shoulder of this lesser peak from Shin Creek Road, first following the blaze between private land and state forest preserve. This field trip yielded much more than just mapping the first vs. second (i.e. cut over) growth boundaries – far more than we ever expected.

The private tract to the south, by the appearance of the stumps, was logged last about 1990. The forest preserve on Lot #200 had not been logged since before 1928 when New York State acquired it; in over 79 years, all stumps had rotted and none was seen.

Sugar maple on both sides of the blaze is the dominant tree, and had been at largely defoliated earlier this season by native forest tent caterpillars. Scattered white ash, black cherry, and basswood were hardly defoliated and stood out with green crowns, in stark contrast to the brown maples. Forest tent caterpillars know no human boundaries, and ate their way through sugar maple foliage on both private and public lands alike. The effect of defoliation on ground cover

plants is also extraordinary and a separate article for the *CFA News* might be required to describe it.

Above the west boundary of the private lands at about 2750 feet elevation and all the way to the summit, all lands were in forest preserve. Lot number 183 was acquired in 1942, but apparently had never been previously cut. There are about 100 square miles of first growth forest left in the Catskills in about a half-hundred separate parcels.

From this point, elevation 2750 feet, and onto the summit, defoliation became less and less apparent. This is because sugar maple loses dominance and becomes increasingly more widely scattered with ascent; only a handful survive on the summit. This is typical over much of the Catskills. Soils on many of the higher summits and ridgelines are too shallow to bedrock and too stony to hold enough water to support sugar maple. Because of this maple's incompetence up here, beech and black cherry, which can tolerate droughts better, dominate instead. Some yellow birch and red maple were on the summit, too.

Because of the beech bark disease on the upper slopes, Ryan and I had to push our way through thickets of beech sprouts which slowed us down and reduced visibility to tens of feet.

With the Catskills' two most dominant species currently threatened, it is difficult to imagine what the region's forests would look like if both sugar maple and beech ceased to exist after at least several thousand years of dominance. Let us hope that this does not happen.



An Early Spring View of the Catskills





PO Box 336
Arkville, NY 12406

MEMBERSHIP APPLICATION

I believe in enhancing the quality of the forest land in the Catskill Region through proper forest management.
To that end, I am interested in joining the Catskill Forest Association and supporting its efforts.

Name _____

Mailing Address _____

Phone #: _____ E-mail: _____

Membership Categories (Select the level & if you'd like, make an additional donation):

Membership	\$50 + \$ _____
Contributing	\$75 + \$ _____
Business / Supporting	\$100 + \$ _____
Supporting	\$150 + \$ _____
Sustaining	\$250 + \$ _____
Benefactor	\$750 + \$ _____

Do you own land in the Catskill Region? Yes _____ No _____

Property address: _____

Telephone #: _____ County: _____

Total acres: _____ Forested acres: _____ Pond Y / N Stream Y / N River Y / N

Amount enclosed \$ _____

All membership dues and donations are fully tax deductible to the extent allowed by law. A copy of the most recent financial statement filed with the New York Department of State is available upon request.