

# The Michigan Forester

Number 84 Winter 2017

## Oak Wilt Work Through the Michigan Invasive Species Grant

Submitted by Josh Shields, Ph.D

Outreach Forester, Forestry Assistance Program

Manistee & Mason-Lake Conservation District

This year, the Manistee Conservation District and collaborating conservation districts representing nine other counties were awarded a grant from the Michigan Invasive Species Grant Program (MISGP) to slow and prevent oak wilt by providing cost share money to landowners who have oaks affected by this invasive fungus.

Oak wilt, caused by the non-native fungus *Ceratocystis fagacearum*, is currently wreaking havoc on our oak resource in Michigan. The disease is fatal for the “red oak group” - those with leaves that have “pointed” tips, such as northern red oak, black oak, and northern pin oak. Oak wilt can cause damage to other species of oak.

This fungus, which is related to the fungus that caused Dutch elm disease, kills oak trees by clogging the water transport system, causing the wilting leaves seen in infected trees. Once oak wilt has infected an oak tree, it can spread underground to neighboring oaks through naturally grafted roots, and it can spread above-ground from sap-feeding beetles that carry the fungal spores to other trees.

FAP foresters in the 10-county project area are making progress toward slowing and preventing oak wilt by educating the public on how to prevent its spread, treating infested areas throughout the region and sharing lessons learned about treatment protocols with partners throughout the state.

(Cont'd on page 3)



Symptomatic tree at a parcel in Grand Traverse County. Photo by Kama Ross.

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2017 Michigan SAF  
Spring Conference:  
*Foresters for Fish*  
Ramada Inn  
Marquette, Michigan  
March 30-31, 2017

2017 SAF National  
Convention  
Albuquerque, NM  
November 15-19, 2017

Have something to contribute or would you like printed copy of the *Michigan Forester*? Please contact Tori Irving at [irvingt@michigan.gov](mailto:irvingt@michigan.gov) or at (906) 458-1210.

# Michigan's Forestry Consultants

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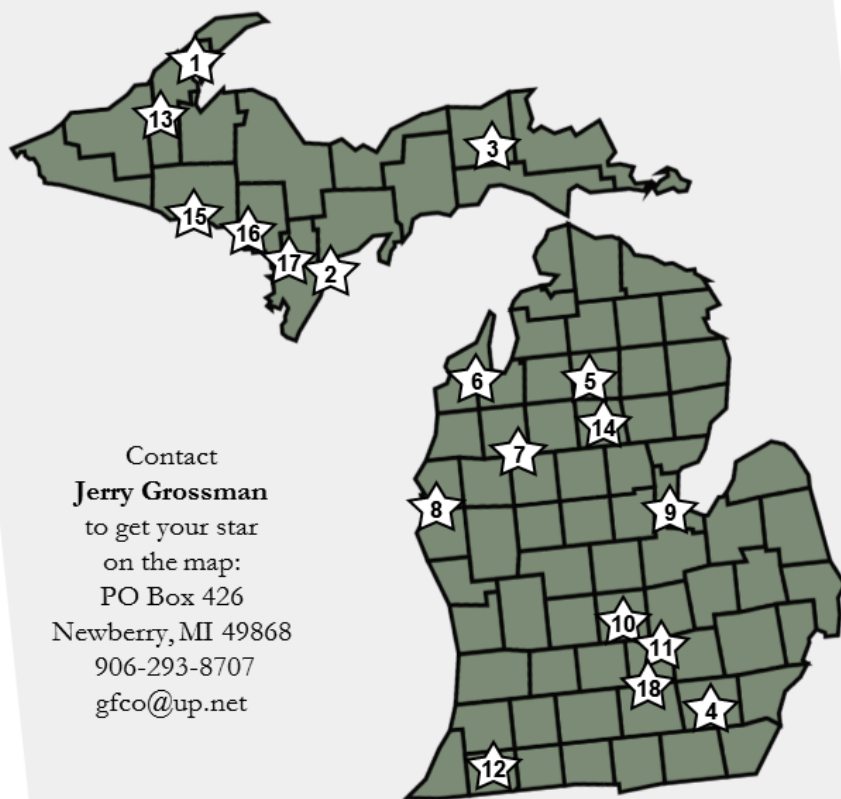
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*The STARS of Michigan's Forests!*



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## Oak Wilt Work (Cont'd)

Eleven high-priority sites in seven counties were selected for treatment in the first year of the grant project. Priority was given to sites where allowing oak wilt to spread would cause the most ecological and economic harm. Of these eleven sites, one site is in Mason County, one site is in Lake County, three sites are in Manistee County, one site is in Missaukee County, one site is in Benzie County, three sites are in Grand Traverse County, and one site is in Leelanau County. Participating landowners are only required to pay for 15% of the treatment cost, with the remaining 85% being paid from the MISGP grant. Treatment areas are being delineated by FAP foresters Josh Shields, Kama Ross, Larry Czelusta, and Rick Lucas, as well as Kayla Knoll, Conservation Specialist with the Manistee Conservation District, and local consulting foresters.



*Harvesting of oak trees within the oak wilt treatment area at a parcel in Mason County. Photo by Josh Shields*

Contractors were hired through a public bidding process to implement treatments at all eleven first-round sites. Treatments are currently underway and will continue until March 31<sup>st</sup>, 2017. Treatments vary by site but begin with cutting down diseased trees and either chipping or covering the wood. Covering the wood for the entire next growing season is important to prevent the spread of fungal spores that will develop on the wood. Live, at-risk trees within the treatment area are either removed and processed or injected with fungicide. If at-risk trees are removed, herbicide is applied to the stumps to kill the root system and prevent the fungus from spreading. Using a vibratory plow, a 5-foot deep line is trenched along the treatment area boundary to sever any root connections (to prevent underground spread).

In the summer of 2017, additional high-priority sites will be selected for treatment. Oak wilt surveys will

continue as well.

Since March of 2016, 148 sites and 3,586 acres were surveyed with the specific goal of looking for symptoms and signs of oak wilt. Outreach efforts have provided information to 59,354 individuals through local expos, news articles and interviews in local media. Approximately 818 individuals have learned about oak wilt and prevention measures through site visits or attendance at outreach events.



*Holes from fungicide injections at a parcel in Manistee County. Photo by Josh Shields.*

If you would like to know more about oak wilt, how to identify it, and the potential treatment options, there are several good resources available. For general information about oak wilt, please visit the Michigan Invasive Species website at [http://www.michigan.gov/invasives/0,5664,7-324-68002\\_71242-370911--00.html](http://www.michigan.gov/invasives/0,5664,7-324-68002_71242-370911--00.html).

For an excellent bulletin about oak wilt with more details, written by Michigan State University Extension, please go to [http://msue.anr.msu.edu/resources/oak\\_wilt\\_in\\_michigans\\_forests](http://msue.anr.msu.edu/resources/oak_wilt_in_michigans_forests). If you are a private landowner and think you might have oak wilt, contact your nearest FAP forester. You can find your nearest FAP forester by going to [http://www.michigan.gov/mdard/0,4610,7-125-1599\\_28740-286087--00.html](http://www.michigan.gov/mdard/0,4610,7-125-1599_28740-286087--00.html).

*This project was funded in part with funds from the Michigan Invasive Species Grant Program through the Departments of Natural Resources, Environmental Quality, and Agriculture and Rural Development.*



*Trench line for breaking root grafts at a parcel in Manistee County. Photo by Chad Van-Voorst.*

# ***UPCOMING EVENTS***

## **MSAF Spring Conference**

March 30-31  
Ramada Inn  
Marquette, Michigan

## **MFA Field Day**

April 8  
Battle Creek, Michigan

## **Spring Celebration—Great Lakes Timber Professionals**

April 10  
Green Bay, Wisconsin

## **Wildlife Through Forestry**

April 18 - Michigan Tech University  
May 8 - Ottawa Sportsman Club

## **Michigan Association of Timberman**

April 27-28  
Boyne Mountain Resort

## **Log Scaling and Grading Course**

May 11  
Pentland Township Hall  
Newberry, Michigan

## **Forest Health & Invasive Species Workshop**

May 11  
Munising Township Hall  
Munising, Michigan

## **Teacher Forestry Program - MFA**

June 19-23  
DNR RAM Center  
Roscommon, Michigan

## **Science and Management of Ash Forests After Emerald Ash Borer**

July 25-27  
The Inn on Lake Superior  
Duluth, Minnesota

## **Stream Crossing Permit Training**

July 27  
Munising Township Hall  
Wetmore, Michigan

## **Land Inheritance/Ties to the Land Workshop**

September 16  
Grand Traverse Conservation District  
Traverse City, Michigan

## **Michigan Forest Association Annual Meeting**

September 22-23  
Tawas Bay Beach Resort  
Tawas, Michigan

## **MSAF Fall Conference**

October 5-6  
Ramada Inn  
Marquette, Michigan

## **2017 SAF National Convention**

November 15-19  
Albuquerque, New Mexico

## **2018 SAF National Convention**

September 30-October 7  
Portland, Oregon

**For more upcoming events and  
additional information, visit:  
[http://michigansaf.org/Calendar/  
calendar.htm](http://michigansaf.org/Calendar/calendar.htm)**

# Wildlife and Timber

Submitted by Brittany VanderWall  
District Forester, Forestry Assistance Program  
Presque Isle Conservation District

Some forest goers gauge forest practice based on the animals they see outside their window. Maybe that's the reason animal habitat is the first goal on a landowner's mind when they call me up looking for forestry advice. So why then is cutting timber not hand-in-hand with those critters in mind? Oftentimes the two are not readily connected. If we associate cutting to attract wildlife to the parcel there are several things to take into consideration. First is keying in on the types of animals the landowner wants to see. There are different strategies for wildlife management depending on these landowner preferences. In my practice I have seen that edge habitat is great for game species to provide movement from covered food sources to open foraging space – but isn't the preference for all. Some large predators thrive in large unbroken forests but have adapted well to human inference. The landowner should begin to manage their woods based on the preexisting forest type. There is no need to reinvent the wheel in this case. Quality over quantity is important especially when you only have so much acreage to work with. How can a smaller woodlot fit into the overall landscape? If the landowner is managing for deer – the range to be considered can be upwards of 500 acres or more. The majority of forest owners do not have 500 acres or more. What opportunities to thrive are provided? Is the full range of habitat considerations available? Generally speaking – variety of habitat is a good rule of thumb for wildlife. There are many different kinds of food sources from shrubs and forbs on the ground to berry bushes - all the way up to buds on a tree. Basswood is a tree species that creates a more basic soil environment and is also of special significance to pollinators. Hemlock and cedar trees aid creatures in protection from winter conditions. Yellow birch not only feeds many songbirds but is a staple presence in a properly diverse rich hardwood stand. Cover is complex – including both appropriate tree cover as well as the dead stuff on the ground. Fallen and standing dead trees can serve as homes to many different creatures in Michigan. Although amphibians are often overlooked in favor of larger more visible species – they are important users of the deadwood. A good forest to a person is different than a good forest to a deer, thus a landowner may not see the value in non-aesthetically pleasing habitat. At the end of the day both landowners and our wildlife have different goals. There are multiple ways to achieve them. Forestry is not "one size fits all".



# ***NOBODY TOLD ME ABOUT TAXES ON MY TIMBER SALE!***

## Tax Tips For Landowners

By Jim Burns

You care about your timberland and want to manage it using sound forestry practices. If you have merchantable timber, you probably hired a forester, wrote a forest management plan, carefully designated your trees for a timber sale, then actually received payment for the trees harvested. All of the forestry advice has paid off; you finally made some money. Everything (you think) is going according to plan, until you report your timber income for taxes, then find out you're going to pay a huge sum of money in federal and state income taxes. Depending on the tax bracket plus the self-employment tax, some taxpayers end up paying more than half of their sale proceeds to the government! Suddenly, all of this forest management doesn't look like a good deal. If this scenario sounds familiar don't feel bad; you have a lot of company. Capital gain tax treatment of timber sale income is detailed primarily under Sections 631(a) and 631(b) of the Internal Revenue Code. This is a highly specialized area of the tax law. The terminology used and appraisal requirements that are specified are written for experienced foresters. Most accountants do not have this kind of background, nor are they confronted with timber sales on a regular basis, if at all. Based upon my experience, I would say that at least a majority of tax accountants know nothing about the sale of trees (timber) being capital gain income. The ones that do have no idea how to calculate a depletion deduction or implement the other provisions of Sections 631(a) or (b). The result of this is that most timber sales are reported as ordinary income, which when added to other income can move the taxpayer into a higher tax rate bracket plus, require the payment of an additional 15.3% for the self-employment tax, resulting in the huge tax bill referred to in my opening scenario. In order to get the lowest tax rates possible, income from the sale of timber should be reported on your federal and state income tax returns as capital gain. The capital gains tax rate has changed this year. If you owned the timberland for one-year or longer, your income qualifies as long-term capital gain and will only be taxed at a minimum of 0% to a maximum of 23.8% rate, depending on your income tax bracket. The self-employment (Social Security) tax of 15.3% and the Alternative Minimum Tax does not apply. If you sold timber in less than the one-year holding period, you should still report the income as short-term capital gain. The Net income will be subject to ordinary tax rates but not the self-employment (Social Security) tax of 15.3%. With your long-term gain, you start with the gross income received then deduct any expenses associated with making the sale, such as payments to a forester for services, your travel expenses to inspect the land, etc. In addition to these expenses, you are entitled to take a timber depletion deduction for the volume of timber cut and sold. The depletion deduction is a tax free return of your cost basis in the trees growing on the land at the date you acquired the property. How this deduction is arrived at would require a separate article to explain, but suffice it to say, it is an important part of minimizing the tax that you will have to pay. For example, clients of mine that purchased or inherited their property within the last 16 years may end-up with a loss for tax purposes because their depletion deduction is greater than the amount they received for the trees that were cut and sold. In other words, they paid no tax, plus had a loss to deduct from other income. It is important to remember, the only way you can take this depletion deduction, and possibly take a loss, is if you file a Form T. The Form T substantiates your big tax savings. Normally, the tax savings between reporting as capital gain versus ordinary income is large – thousands of dollars. I learned about capital gain tax treatment of timber when I was a forestry student and recognized what a great tax benefit it was to practicing good forest management. It puts forestry on a par with investing in the stock market. Most foresters learned about this in school as well, but by inclination, want to concentrate on managing forests and leave taxes to the accountants. Accountants, on the other hand, probably never heard anything about timber in school. Hence, there is a big information disconnect between the two professions, which took me years to realize. I owned and operated a forestry consulting firm for 25-years and as a standard business practice always prepared the Form T required to substantiate the depletion deduction and capital gain for each of my timber sale clients. Without exception, the tax preparer for every client would call to ask if this was legal and the correct way to report the income! I didn't matter if it was a high-powered tax firm in Boston or a local accountant. For the past twenty years I have been writing articles such as this and specializing in completing the tax reports for anyone's timber sale. Every year I receive a disturbing number of calls from readers who tell me that their tax preparer informed them it was not legal, or it could only be used by big corporations, or farmers could not use it, or various other reasons too numerous to mention. Based upon this experience, I have to conclude that this is a common occurrence throughout the country, not just the mid-west. Anyway, don't give up on forest management – it pays off. Just remember to include capital gain taxation in your forest management plan for future timber sales. If you sold timber within the last three years and reported the sale incorrectly, all is not lost, file an amended return. In any event, if your tax preparer says you can't use the capital gain provisions, have them call me for a second opinion.

Jim Burns is a professional forester who owns and operates Burns Timber Tax Services and works in conjunction with Susan Metcalfe at Metcalfe Forestry LLC. For more information, call Susan at (989) 348-3596 with your questions.

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## *MiSAF Members Receiving Membership Pins in 2016*

Submitted by Craig Kasmer, Awards Chair

Every Spring Conference and Fall Conference, Membership Recognition Pins are handed out at the evening banquet. Please take a moment to see if your name is on the list of pin recipients for this year. If it is, be sure to attend one (or why not both?) of the conferences this year; if you recognize a friend/colleague/neighbor etc. that is on the list, please let them know that they are on the pin recipient list.

### *10 Year Pin Recipients*

(Member Since 2006)

Mr. Jesse Bramer  
Mr. Jeffrey Breuker  
Mr. Brett Kuipers

Mr. James McFarland  
Ms. Brenda Haskill  
Mr. Michael Schreiber

### *20 Year Pin Recipients*

(Member Since 1996)

Mr. James Ferris  
Ms. Kathleen Halvorsen  
Mr. Lloyd B. Martindale  
Mr. Lawrence Pedersen  
Mr. Michael J. Shepard  
Mr. Warren H. Suchovsky

### *30 Year Pin Recipients*

(Member Since 1986)

Mr. Stephen I. Albee  
Mr. Bruce E. Maki  
Mr. Peter G. McCurdy  
Mr. William J. O'Neill (Fellow)  
Ms. Karen L. Rodock  
Mr. Glen D. Tolksdorf

### *40 Year Pin Recipients*

(Member Since 1976)

Mr. Stephen Kelley  
Mr. Don Krejcarek  
Dr. H. William Rockwell  
(Fellow)

### *50 Year Pin Recipients*

(Member Since 1966)

Mr. Gary W. Carr (Retired Member)

### *60 Year Pin Recipients*

(Member Since 1956)

<b>Michigan SAF Education Fund - 2015 Prepared by Chad Fate</b>	<b>Budgeted Expenses</b>	<b>Budgeted Revenue</b>
Beginning Balance		\$493.27
<b>Income</b>		
Raffle Tickets Spring		\$800.00
Raffle Tickets Fall		\$800.00
Donations Spring		\$150.00
Donations Fall		\$150.00
<b>Expenses</b>		
MSU Scholarship	\$250.00	
MTU Scholarship	\$250.00	
Raffle prizes/supplies spring	\$150.00	
Raffle prizes/supplies fall	\$150.00	
National SAF Education Fund (2/3 raffle ticket sales)	\$1,066.67	
<b>Balance</b>		<b>\$526.60</b>

## Michigan Society of American Foresters

### Year 2016 Budget and Report

Revenue	Expected for 2016	Revenue Received as of October 31, 2016
Membership Dues	\$2,800.00	\$1,998.00
Interest	\$35.00	\$31.59
Spring Conference Proceeds	\$1,750.00	\$(1,825.52)
Fall Conference Proceeds	\$1,000.00	\$-
Michigan Forester Ads	\$1,200.00	\$1,425.00
Donations, Sponsorships, etc. <sup>1</sup>	\$250.00	\$-
<b>Total</b>	<b>\$7,035.00</b>	<b>\$1,629.07</b>

Expenses	Budgeted for 2016	Funds Disbursed as of October 31, 2016
HSD Dues	\$250.00	\$-
Chapter Dues <sup>2</sup>	\$1,125.00	\$391.50
Michigan Forester	\$100.00	\$-
Society Administration	\$400.00	\$155.53
Honoraria <sup>3</sup>	\$800.00	\$-
Chair directed funds for attendance at national mtg <sup>4</sup>	\$4,500.00	\$990.20
Donations, sponsorships, etc. <sup>5</sup>	\$1,100.00	\$350.00
Leadership Academy <sup>6</sup>	\$800.00	\$800.00
Awards	\$200.00	\$-
Student Participation Support	\$500.00	\$500.00
<b>Total</b>	<b>\$9,775.00</b>	<b>\$3,187.23</b>

	January 1, 2016	October 31, 2016
Cash on Hand:	\$15,268.13	\$13,709.97

**Michigan Society of American Foresters has cash assets only.**

**Prepared by: Lee Mueller, Treasurer**

<sup>1</sup> Donations, contributions, or other sponsorships.

<sup>2</sup> Includes \$391.50 for 2015 dues allocation that were paid in 2016.

<sup>3</sup> Editor, Education Fund, Treasurer, and Secretary each receive \$200.00 at year end.

<sup>4</sup> Includes \$490.20 paid in 2015 that did not clear accounts until January 2016.

<sup>5</sup> Sponsorships or donations to conferences, education, or other initiatives.

<sup>6</sup> Allocation paid to Education Fund for future leadership academies.



## *A Little Bit of History*

*The Michigan Forester*, which was put together by the UM Forestry Club. The author of this article is Lillian Starrett and the title is, *War and Forests*. The copy of this publication was submitted by Doug Heym. Thanks, Doug!

If you have any historical publications or photos that you think would be beneficial to our publication, please contact Tori Irving at [irvingt@michigan.gov](mailto:irvingt@michigan.gov) or [toriirving@gmail.com](mailto:toriirving@gmail.com) or at 906-458-1210.



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# War and Forests

LILLIAN STARRETT, '39

Tramp, tramp, tramp—the echoes of those countless feet which marched during the World War are merging into the sound of feet marching now and others to be marching in the future. That war lasting from 1914 to 1918 was a "war to end wars," but again on the European horizon as well as in the Far East we hear the rumble of guns, the helpless moaning of the wounded, and always those marching feet.

Over in Spain is a civil war nearing its completion—a war that has made a country already poor even more destitute. In the Far East, Japan and China are fighting for possession of China's land and natural resources. Only the rumblings of war have issued from central Europe so far, but the pot is boiling merrily with much steam escaping by way of Austria, and by the time this is in print that pot of European stew may have boiled over.

What are a few of the constituents of this stew that have caused it to come back to a boil within a quarter century of the most horrible example of hatred and widespread destruction of human beings, homes, cities, animals, crops, forests, even the earth itself? Many of these ingredients are items with which we are so familiar that their significance is overlooked. It is common knowledge that the population density of Europe is great in comparison to the other continents with the exception of Asia, also that the people are highly taxed, and that the natural resources are divided among so many political units that each country lacks one or more of the basic resources. For instance, France imports coal, but has an excess supply of iron; Italy lacks coal and iron; Great Britain has a large supply of iron and sufficient coal, but depends on Canada and other countries, especially the United States, for supplies of copper, lead, zinc, tin and sulphur.

Not only do the mineral resources of a country play an important part in the history of its international relations, but so also do the forest resources. Forests are especially important during times of war, when imports and exports are restricted.

England discovered during the American

Revolution how important wood can be. At that time she was obtaining gigantic white pine monarchs from New England forests as masts for her navy. When this source of supply was closed during the Revolution, England found it impossible to maintain her ships, so that the navy was relatively ineffectual. Thus, the lack of suitable mast material (a forest product) was an important factor in determining the outcome of our fight for independence.

Likewise, the extensive forests of France, Canada, Russia and the United States provided the Allies with immense quantities of inexpensive construction material, which, with their large supplies of other natural resources, enabled the Allies to carry the World War to a successful conclusion.

The present situation with regard to the forest resources of these European countries is quite similar to what it was after the World War. Great Britain imports 99 per cent of the wood she consumes annually, as her forest area per capita is only one-tenth acre. However, much of this wood is or can be obtained from her colonies, for 21 per cent of the world's forest area is under the control of the British Empire. Russia, on the other hand, is a large exporter of wood and wood products, with a forest area of 4.4 acres per capita; also controlling 21 per cent of the world's forest area. Many of the forests of France were cut over during the World War, so now this country imports approximately three times as much as it exports. Since almost all of the French colonies have only tropical hardwoods and the greatest demand is for northern coniferous species, the majority of France's imports are from countries outside her political authority. Italy is a net wood-importing country, as one would expect from her low forest area per capita of 0.4 acre. The total amount of wood imported by Italy is rather low, less than one-fourth that imported by Great Britain where the consumption per capita is the same. This situation is probably due to the small part, about 0.2 per cent, of the world's forest area under Italian regulation. Germany also imports wood, about as much as does Great Britain even though her con-

sumption per capita is twice that of the latter. The fact that Germany controls only 0.5 per cent of the forest area of the world means that all wood imported by Germany must come from countries under other and generally unsympathetic political dominion. Lately the Germans have been suffering a shortage of lumber and will find much use for the extensive forests of former Austria; a factor which was influential in bringing about the absorption of Austria into Germany.

In comparison, the United States is a large exporter and a larger importer, the latter somewhat overbalancing the former due to heavy imports of wood pulp and paper from Sweden and Canada. Our per capita consumption is greater than any other country, almost eight times that of France and Germany. Even though the forest area per capita in the United States is about 4 acres, and 13.4 per cent of the world's forest area is controlled by the United States, before the depression starting in 1929 this country was cutting some 4 billion cubic feet in excess of the annual growth, while in Russia just the opposite has been true, the forests having an excess growth over cut only slightly less than 4 billion cubic feet. However, the planned industrialization of Russia will make a greater cut necessary, and American foresters and lumbermen are beginning to cooperate in bringing about a better balance between cut and growth.

The influential European nations probably would line up in the event of another major war with England, France, and Russia opposing Germany and Italy. This would give the conservative group an exceedingly great supply of wood and wood products as compared with the more radical group, for Great Britain, France and Russia together control over 51 per cent of the world's forest area, while Germany and Italy control less than 1 per cent. To say the least, this situation looks rather dark for the aggressive nations inasmuch as it is far too expensive for any country to use substitute materials in place of wood on a large scale.

Extensive forest areas of commercial quality and accessibility insure a nation independence for wood supplies. Wood is particularly important because it is easily available and adaptable, and requires little skill to work. It can be readily cut and

shaped into any desired size and form, and is obtainable in kinds and grades for all purposes. Wood has greater strength per unit of weight than steel and iron. It is also a good insulator. To substitute other materials in the production of the myriad articles and by-products of wood in common use is likely to prove an unsatisfactory and expensive procedure. On the other hand, where there are abundant supplies, wood can often be substituted for other materials with equal satisfaction and at a lower cost.

War time as well as peace time finds wood and its products being used for many different purposes. The land, sea, and air forces all use great quantities of forest products in gaining their objective of victory.

On land the protection force needs barracks for housing the men, warehouses to keep their supplies, fuel to keep them warm and to cook their food. In addition, carts, wagons, trucks, and railroad cars are needed, as well as hundreds of thousands of ties and timbers for temporary railroads, truck roads, and bridges. Boxes and cases must be available in which to ship food, ammunition, clothes, hospital supplies and the countless other items so necessary in successfully carrying on a war. At the front, wood is essential for reinforcing the walls of trenches and dugouts. Wooden mats are made for the floors of the trenches on which the soldiers can stand instead of sinking into the mud. Wooden posts are used in creating the wire maze found in "no man's land." The stretchers, ambulances, and hospitals which receive the wounded all require wood in their construction.

Even the modern steel battleships use much wood for inside finishing and equipment. Also, the wharves and docks at which they land are still made of wood at least in part. During the World War the excessive demand for ships to transport supplies led to the hasty construction of wooden vessels, in which large timbers and lumber (principally Douglas fir) were used.

The air force, in addition to housing quarters—both barracks and dugouts—for the aviators and mechanics, needs airplanes and hangars in which to store them. Spruce is still a favorite construction material for airplanes because of its strength and lightness, its abundance, and its relatively low cost. Walnut is coming back into use for

*(Continued on page 73)*

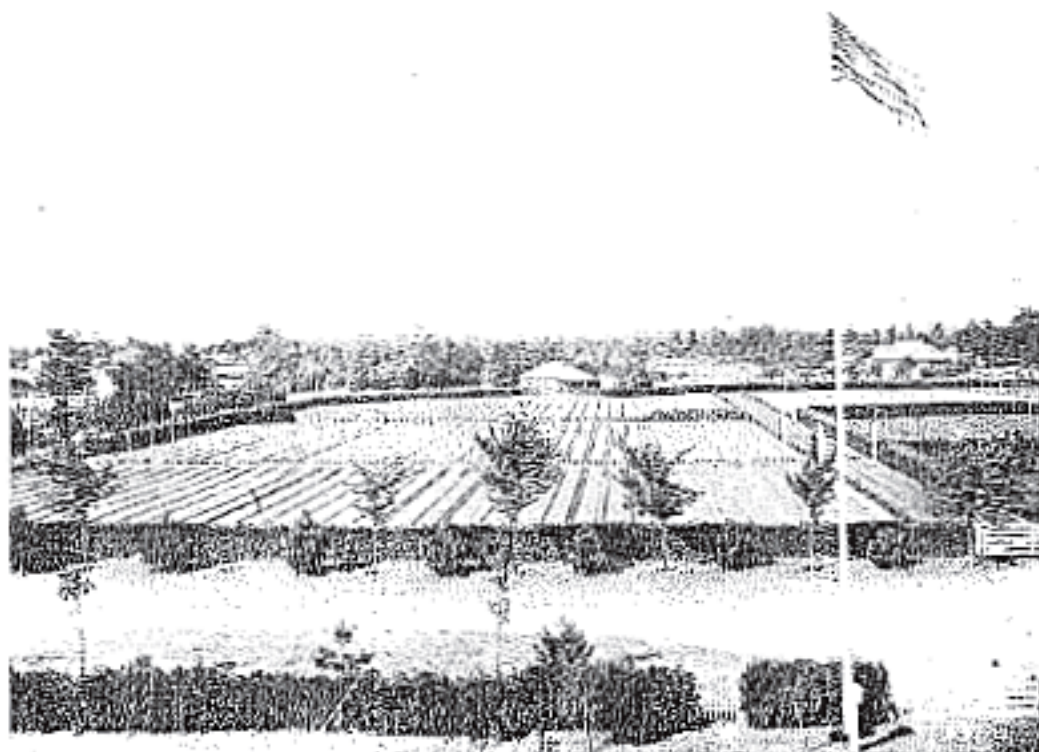
## War and...

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propellers, experience having proved it more satisfactory than metal.

During the reconstruction period following a war there is much work to be done in repairing the damage done to the cities, to the rural homes and farms, and to the transportation lines. Buildings and homes must be replaced, barns and fences renewed, bridges put in again and railroad lines repaired or rebuilt. All of this calls for wood in one form or another. Wood siding or framework may be used for the buildings, wood furnishings in the homes and offices, posts and rails for the fences and ties for the railroads. These are only a few of the uses to which wood is adapted. There are many others, one of the most important being for paper, through the medium of which our ideas are communicated and civilization perpetuated.

Toumey has said that "victory comes with the greatest iron mines and smelters, the largest areas of waving grain and the greatest abundance of wood." If a nation expects to win its wars, or, what is more important, to be influential in the fight for peace, that nation must take provision for perpetually productive forests from which adequate supplies of wood can be obtained to meet its needs in peace and in war.



—Photo by U. S. Forest Service