

Understanding Landowner Perceptions of Oak: Developing Key Ingredients for Effective Outreach and Marketing



Lessons Learned:

Effective communication to promote managing for oak requires understanding woodland owners' perceived barriers and benefits of the practice.

Key Findings

Recommendations

Wildlife habitat and beauty are the first benefits that come to mind for woodland owners when they think about the desirability of oak. Hunting opportunities, timber value, and firewood are also commonly cited benefits of oak.

In communicating to a general woodland owner audience about managing for oak, focus on messages and images that may resonate most, such as wildlife habitat, including acorns as a food source, and the beauty of oak on the landscape.

Woodland owners already have positive attitudes toward oak and believe the future of oak is important. Very high percentages believe oak is an important local tree species and symbolizes good traits, such as long-life and strength. A smaller majority believes oak should be favored over other species in their area.

Consider using a social norms messaging strategy that emphasizes community support for oak. Examples might include a statement from our results such as "9 out of 10 woodland owners believe that oak is an important local tree species."

Susceptibility of oak to disease or pests was cited as a disadvantage of oak by a majority of woodland owners, and a significant minority cited the slower growth rate of oak as a disadvantage.

Design messages to reduce perceived barriers or disadvantages to oak. For example, build woodland owners' self confidence in their abilities to proactively deal with disease and pest issues (e.g., early detection and treatment) and the importance of diversification. Barriers such as the slow growth of oak may be offset by conveying an accompanying benefit such as the quality of wood.

Why Oak?

Oak (Quercus sp.) is a species that has experienced a decline nationwide, with the forests of the Midwest following similar trends. While oak is still a dominant forest type in the region, the understory is often lacking the younger age classes that would secure the future for oak; instead, oak is being replaced by more shade-tolerant tree species (Knoot et al., 2015)—termed "mesophication" of the oak woodlands (Nowacki & Abrams, 2008). Successful oak regeneration requires active woodland management that can provide the light and conditions that oaks need to successfully compete and thrive. Most oak woodlands in the Midwest are under private ownership, and thus oak management and the future of oak lie in the hands of private landowners. However, practices that can foster oak regeneration, such as harvesting of overstory trees and the removal of understory shrubs and competing trees, are often labor intensive, considered a financial burden, and entail risk. Consequently, foresters in the region have experienced resistance by private landowners to manage for oak, and they question the likelihood of the widespread adoption of oak management on private lands needed for oak to persist (Knoot et al., 2009).

Understanding Landowner Perspectives of Oak

Encouraging woodland property owners to adopt a substantial new land management practice such as managing for oak is a challenge that can be partially addressed through more effective outreach informed by social science. Understanding the perspectives of private woodland owners concerning oak management is central to efforts to help encourage and motivate landowners to take these sometimes difficult steps that promote oak growth and regeneration.

The goal of this project was to inform outreach and marketing strategies that can help motivate woodland owners toward taking active steps to manage for oak. The approach described in this brief was twofold. First, we carried out semi-structured, in-person interviews to better understand the perspectives of woodland owners in southwest Wisconsin toward oak and oak management actions. Interview findings were then used to develop a quantitative survey to provide an understanding of the relative importance of various benefits of oak and barriers to oak management. This brief reports findings related to woodland owners' perceived benefits and barriers of oak as a focal species for management.

Woodland Owner Interviews

We completed in-depth interviews with 36 woodland owners in southwest Wisconsin. Southwest Wisconsin, considered the 'Driftless Area', escaped the most recent glacial event and is composed of a mix of agricultural and forest land. The region exhibits conditions that are ideal for exploring opportunities for understanding private woodland owner perspectives on oak given that the majority of forestland (up to 90%) in the region is in private ownership and over half of these forests are currently dominated by oak (Knoot et al., 2015).

We used a purposive sampling method to recruit woodland owners who were considered to have substantial woodland management experience and who could speak to a broad range of management issues. Private forestry consultants and state agency foresters assisted with identifying potential interviewees. Interviews were conducted in person and ranged from 32–114 minutes in length, and all interviews were recorded and transcribed. We used qualitative analysis methods to identify themes across interviews; NVivo (ver. 10, QSR International) was used for coding and data management.

Interview participants owned land in eight southwestern Wisconsin counties, with an average property size of 140 acres (range of 10–570 acres). We found a wide range of length of ownership: some properties were held by the owner's family for 100+ years, while others were acquired within the past 5 years. Approximately two-thirds of the landowners had enrolled part or all of their property in Wisconsin's forest tax program, the Managed Forest Law (MFL) program.

"Everything revolves around [oak]...turkeys, your squirrels, your raccoons, your deer. Everything revolves around them acorns."

-Woodland owner in southwest WI

Woodland Owner Survey

Results from the interviews then informed a survey, which was designed to identify the perceptions of woodland owners concerning oak and to determine the relative importance of various barriers and perceived benefits to oak management. We surveyed 1,500 woodland owners in southwest Wisconsin; half of the sample of woodland owners were enrolled in Wisconsin's MFL program.

The survey was delivered in the fall of 2014 and consisted of five mailings, with the first mailing offering woodland owners the opportunity to complete a web-based version of the survey. The final mailing consisted of a paper copy of the survey. We received 558 usable surveys, with an adjusted response rate of 41.2%. On average, respondents owned 97 acres of woodland (median of

58 acres), with 46% considering these woodlands as part of a farm. Nearly half (48%) of the survey respondents lived on or beside their woodland, and 27% lived more than 50 miles away. Most of the respondents (62%) reported to have been enrolled in the MFL program. Previous studies indicated some differences between MFL enrollees and woodland owners who are not part of the program, including acreage size (MFL owners typically owned more acres). MFL enrollees also placed a higher importance on income generated from forest products as a reason for land ownership, although both MFL and non-MFL enrollees placed lower importance on income relative to other reasons, such as privacy or hunting. The characteristics of our survey respondents followed what has been found of woodland owners in Wisconsin, though some attributes, such as average size of ownership, more closely aligned with MFL enrollees (Rickenbach et al., 2012).

Desirability of Oak

Developing effective marketing and outreach requires integrating an understanding of the perceived benefits and barriers to the use of a particular product or adoption of an action of interest (McKenzie-Mohr, 2011). Our goal was to "unpack" our understanding of oak as a focal species for management in order to: (a) identify the relative importance of various desirable or undesirable attributes of oak, and (b) assess woodland owners' attitudes toward managing for oak and perceived trade-offs.

What makes oak a desirable tree? Our initial insights toward understanding the desirability of oak emerged from the in-depth interviews. When asked about the advantages or disadvantages of having oak trees on their properties, interviewees most often cited the provision of wildlife habitat, associated hunting value, and the beauty of oak (Table 1). Timber value (i.e., the value gained through harvesting and selling the oak trees) and personal use of the wood were also cited by interviewees as benefits.

Table 1. Perceived benefits of owning land with oak trees discussed most frequently by interviewees (N=36). Mentioned by fewer than two participants: hardy tree species and staying active.

Benefit	# of Interviewees
Wildlife habitat	14
Aesthetic beauty	11
Timber value	8
Hunting	7
Firewood or timber for personal use	7

We used the initial findings to develop survey questions that helped identify the relative importance of these perceived benefits. Overall, we found the perceived benefits of oak that we tested were all considered desirable by most respondents; nearly half or more than half of respondents found these attributes to be very desirable (Fig. 1). With respect to comparing relative importance of these attributes, an aesthetic appreciation (i.e., "look"

What Woodland Owners Like About Oak

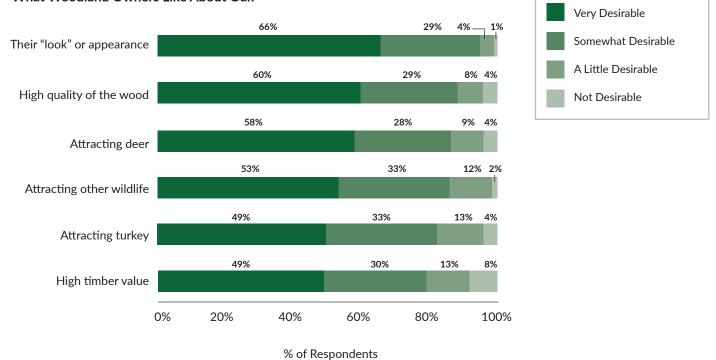


Figure 1. Perceived desirability of various characteristics of oak trees, as assessed through a survey of woodland owners in southwest Wisconsin (n=533-536).

or appearance) of oak was considered by 66% of respondents to be very desirable, while slightly fewer than half of respondents found timber value to be very desirable. This finding was consistent with other statewide and national surveys of woodland owners in which timber value was of less importance than other factors as a motivation for owning woodland (Butler et al., 2016; Rickenbach et al., 2013). However, timber value can resonate with a specific segment of woodland owners (Butler et al., 2007).

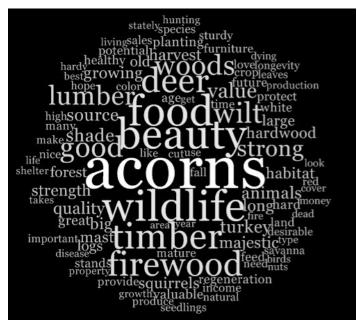


Figure 2. The frequency of words describing what woodland owners think about when they think of oak; size of the word is associated with the frequency that the word appeared in a written response.

Oak "language"

Determining the most appropriate language to use for a particular audience is critical for effective communication and marketing. In the survey of woodland owners, we asked an open-ended question about what respondents think about most often when they think of oak. We analyzed the frequency of particular words in their responses (531 woodland owners responded to this question), and we found that respondents readily described images of acorns, frequently used the term "beauty," and regularly referenced the value of oak as food for wildlife (Fig. 2).

Speaking the Language of Landowners

To motivate landowners, we recommend choosing images and language that are consistent with those most highly reported benefits of oak, such as the aesthetic beauty of oak and attractiveness to wildlife species. For a general marketing approach (lacking audience targeting), you may not want to lead with timber value.

"[It was] about 3 or 4 years before I found out I had oak wilt, and it wiped out most of my red oak before they even got logging...It just wiped me out."

-Woodland owner in southwest WI

What are woodland owners' attitudes toward oak?

We further assessed the attitudes of woodland owners toward oak as an important tree species in the region as well as perceived potential trade-offs of managing for oak. We found that most

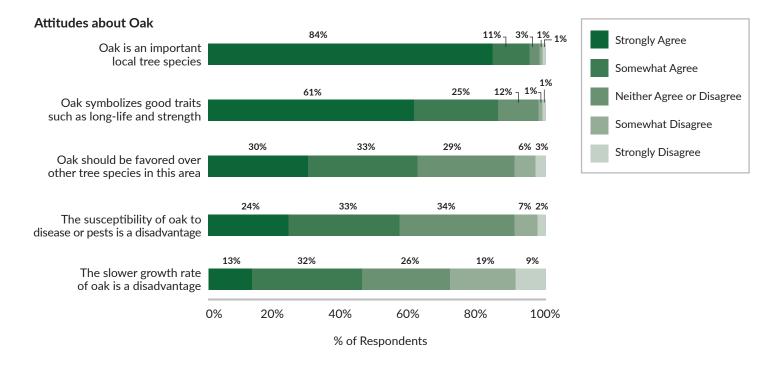


Figure 3. Attitudes of woodland owners in southwest WI toward oak (n=535-538).

(95%) of respondents agreed that oak is an important local tree species, and 63% agreed that oak should be favored over other tree species (Fig. 3). A high percentage (86%) of survey respondents also agreed that oak symbolizes good traits, such as long life and strength.

There are various perceived disadvantages that emerged during our interviews with woodland owners, particularly the susceptibility of oak to diseases and pests, such as oak wilt, as well as the slow growth rate.

When evaluated through the survey, over half (57%) of respondents agreed that the susceptibility of oak to disease and pests would be considered a disadvantage, while 45% agreed that the slower growth rate also is a disadvantage (Fig. 3).

Recommendations

Social marketing techniques and tools often focus on addressing or enhancing perceived benefits as well as reducing barriers of a particular action (McKenzie-Mohr, 2011). In the context of managing for oak, we recommend communications and marketing strategies that emphasize the benefit of oak, such as its beauty, value to wildlife, and positive attributes, such as strength and longevity, while also addressing potential barriers. In this study, we found that the susceptibility of oak to pests and diseases was considered a disadvantage by most woodland owners. We recommend designing messages that help give woodland owners the confidence that they can reduce barriers, such as the risk

and susceptibility of their woods to oak pests and diseases. Steps they can take may include the use of early detection measures or diversifying the tree species present in their woodlands.

Social norms are also considered important in influencing behavior. An understanding of social norms has been used across a variety of communication and marketing campaigns. Social norms are described as informal understandings of how others should behave. We found that a high percentage of respondents feel that oak is an important local tree species; as a result, a message that highlights community support for oak may be impactful. Examples might include a statement from our results such as "9 out of 10 woodland owners believe that oak is an important local tree species."

References:

Butler, B.J., Hewes, J.H., Dickinson, B.J., Andrejczyk, K., Butler, S.M., & Markowski-Lindsay, M. (2016). Family forest ownerships of the United States, 2013: Findings from the U.S. *Journal of Forestry*, 114.

Butler, B.J., Tyrrell, M., Feinberg, G., Vanmanen, S., Wiseman, L., & Wallinger, S. (2007). Understanding and reaching family forest owners: lessons from social marketing research. *Journal of Forestry*, 105(7), 348-357.

- Knoot, T.G., Schulte, L.A., Grudens-Schuck, N., & Rickenbach, M. (2009). The changing social landscape in the Midwest: A boon for forestry and bust for oak? *Journal of Forestry*, *107*(5), 260-266.
- Knoot, T.G., Shea, M.E., Schulte, L.A., Tyndall, J.C., Nelson, M.D., Perry, C.H., & Palik, B.J. (2015). Forest change in the Driftless Area of the Midwest: From a preferred to undesirable future. *Forest Ecology and Management*, *341*, 110-120.
- McKenzie-Mohr, D. (2011). Fostering sustainable behavior: An introduction to community-based social marketing. Gabriola Island, BC (Canada): New Society Publishers.
- Nowacki, G.J., & Abrams, M.D. (2008). The demise of fire and "mesophication" of forests in the eastern United States. *Bioscience*, *58*, 123-138.
- Rickenbach, M., Knoot, T.G., Silbernagel, K., Nielsen, C., & Hellman, A. (2012). *Expanding sustainable forestry on Wisconsin woodlands*. Retrieved from http://learningstore.uwex.edu/assets/pdfs/g3996.pdf

(c) 2017 University of Wisconsin-Extension. All rights reserved.

Authors: Tricia Gorby Knoot & Bret Shaw

Reviewer: Katy Thostenson

Graphic design: Elizabeth Rossi, UW Environmental Resources Center