

This column features questions from readers submitted via the website. To submit a question to Small Acre Sam, visit BarnyardsandBackyards.com. If your question is featured, you will receive a free one-year subscription to *Barnyards & Backyards!*

ask Sam

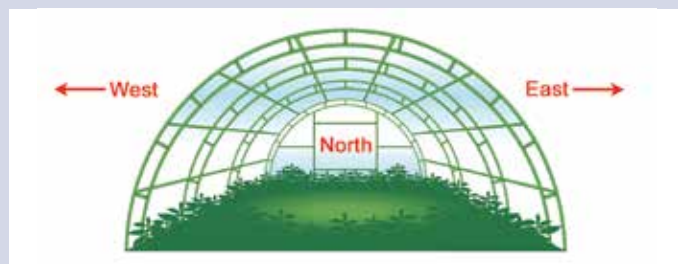
question

Dear Sam,

Which direction should a hoop house be oriented?
– *Chuck, Douglas*

Dear Chuck,

It depends. If you are using a woven polyethylene cover (such as from J&M Industries - Solarig product or material from Northern Greenhouse supply – the two I know about), light is intercepted and diffused through these covers – meaning it bounces around after entering the structure, so orientation is only important for ventilation. If you are using passive systems to keep it cool (i.e., rollup sides), it is best to orient the structure for good ventilation during the summer months.



So north/south vs. east/west is not important for light interception with this type of woven covering. This is the covering I recommend because it is more wind and hail resistant and will last longer.

When using greenhouse films, also known as agricultural plastic, poly-film, and greenhouse plastic, the light passes directly through with very little diffusion. Data suggests if you live above the 40th parallel (and we do), high tunnels should be oriented north and south – the reason being that, as we reach the autumnal equinox and the angle of the sun changes, you are still able to collect as much light as possible without it bouncing off the structure.

That being said, I see structures running both directions covered with greenhouse plastic in which vegetable production, etc., is very similar.

Which can bring up another possible explanation. Much of this type of research has been done on the East and West Coasts. Conditions in the winter months are very different in those areas of the country than in Wyoming. Here we have many more sunny days, which allow us to collect more light and heat over the winter. If winter production is a concern for you, this type of production is more about heat retention than light – and that is an entirely different discussion.

My personal structure is oriented east and west and covered with the woven polyethylene cover (I have high hail potential and a windy location). The north and south walls have rollup sides. What were my deciding factors? An end wall is facing west because that is the direction the strongest winds come from during the off-season, and it fit in the space available just a little better. I figure I can always plant in north-to-south rows if I believe I need to capture more light.

– *Sam*

answer

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