

## Materials List for

# JenaTron - An Experimental Approach to Study the Effects of Plant History and Soil History on Grassland Ecosystem Functioning

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## Materials

| Name                                | Company                     | Catalog Number | Comments                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------------|-----------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Bulb planter (4 cm diameter)        | Kent & Stowe                | hardware store | <a href="https://www.bauhaus.info/gartenhandgeraete/kent-stowe-hand-blumenzwiebelpflanzer/p/27516825?cid=SSAGoo8995092923_90652787883&amp;gad_source=1&amp;gclid=CjwKCAiAqNSsBhAvEiwAn_tmxcMcdBxDo72K6gO6FX7hNePwWoc_8JlCgwA4qrYsbv-diJHf_osDhoCXxEQAvD_BwE">https://www.bauhaus.info/gartenhandgeraete/kent-stowe-hand-blumenzwiebelpflanzer/p/27516825?cid=SSAGoo8995092923_90652787883&amp;gad_source=1&amp;gclid=CjwKCAiAqNSsBhAvEiwAn_tmxcMcdBxDo72K6gO6FX7hNePwWoc_8JlCgwA4qrYsbv-diJHf_osDhoCXxEQAvD_BwE</a> |
| Connector suction candle            | Umwelt Geräte Technik (UGT) | 1871000        | <a href="https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/">https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/</a>                                                                                                                                                                                                                                                                                                                       |
| Cultivation tray (without drainage) | Bonsai-shopping             | 59000/5-m.D._1 | <a href="https://www.bonsai-shopping.eu/Anzuchtschale-59000-5er.html">https://www.bonsai-shopping.eu/Anzuchtschale-59000-5er.html</a>                                                                                                                                                                                                                                                                                                                                                                               |
| Demineralized water (VE)            | Alfiltra                    | VEWA1000B      | <a href="https://www.alfiltra.de/zubehoer/1000-liter-ve-wasser-im-ibc-behaelter">https://www.alfiltra.de/zubehoer/1000-liter-ve-wasser-im-ibc-behaelter</a>                                                                                                                                                                                                                                                                                                                                                         |
| Duct tape                           | T-Rex                       | hardware store | <a href="https://www.bauhaus.info/panzertape/t-rex-">https://www.bauhaus.info/panzertape/t-rex-</a>                                                                                                                                                                                                                                                                                                                                                                                                                 |

|                                           |                |                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------|----------------|----------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                           |                |                | gewebeband/p/25421491?cid=SSAGoo8843016955_150014388930&gad_source=1&gclid=CjwKCAiAqNSsBhAvEiwAn_tmX5KDI2CRPyAgi7nx2ILVTSy7dUfNY2DvvCi0ZvtnU8opjA-stwmvRoCflwQAvD_BwE                                                                                                                                                                                                                                                                                                         |
| iDiv Ecotron                              | iDiv           | n.a.           | <a href="https://www.idiv.de/en/research/platforms-and-networks/idiv-ecotron.html">https://www.idiv.de/en/research/platforms-and-networks/idiv-ecotron.html</a>                                                                                                                                                                                                                                                                                                               |
| Plastic boxes (20 L)                      | Auer Packaging | EG 43/22 HG    | <a href="https://www.auer-packaging.com/de/de/Eurobeh%C3%A4lter-geschlossen/EG-4322-HG.html?customer_type=private&amp;gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csk38dwQfgiSU63eKE-xapuDT3f2f6EpzwKCJdknbGPNbEwv4iOg0YaApUKEALw_wcB">https://www.auer-packaging.com/de/de/Eurobeh%C3%A4lter-geschlossen/EG-4322-HG.html?customer_type=private&amp;gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csk38dwQfgiSU63eKE-xapuDT3f2f6EpzwKCJdknbGPNbEwv4iOg0YaApUKEALw_wcB</a> |
| Filter paper (150 mm diameter)            | Labsolute      | 7697996        | <a href="https://www.thgeyer.com/lab/shop/qualitativ-rundfilter-sorten-2005/labsolute-/7697990_de?variant=7697996">https://www.thgeyer.com/lab/shop/qualitativ-rundfilter-sorten-2005/labsolute-/7697990_de?variant=7697996</a>                                                                                                                                                                                                                                               |
| Forklift                                  | hirsch         | NEW-10084      | <a href="https://www.hirsch.expert/elektro-gabelstapler-2-tonnen_1794_13098/?gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csmqfjWn46WITGVGnZDoDv4WkqUhWT0eYrsGnvIWcjmrOYCp3c3QC4aAn3WEALw_wcB">https://www.hirsch.expert/elektro-gabelstapler-2-tonnen_1794_13098/?gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csmqfjWn46WITGVGnZDoDv4WkqUhWT0eYrsGnvIWcjmrOYCp3c3QC4aAn3WEALw_wcB</a>                                                                                   |
| Gibberellic acid (90%)                    | Rotichrom      | 7697996        | <a href="https://www.carloth.com/de/de/weitere-vergleichssubstanzen/gibberellinsaeure/p/7464.2">https://www.carloth.com/de/de/weitere-vergleichssubstanzen/gibberellinsaeure/p/7464.2</a>                                                                                                                                                                                                                                                                                     |
| Measuring jugs (3000 mL)                  | Hünersdorff    | hardware store | <a href="https://www.hornbach.de/p/messkanne-3000-ml-huenersdorff/6481831/">https://www.hornbach.de/p/messkanne-3000-ml-huenersdorff/6481831/</a>                                                                                                                                                                                                                                                                                                                             |
| Measuring jugs (5000 mL)                  | Hünersdorff    | hardware store | <a href="https://www.hornbach.de/p/messkanne-5000-ml-huenersdorff/6481832/">https://www.hornbach.de/p/messkanne-5000-ml-huenersdorff/6481832/</a>                                                                                                                                                                                                                                                                                                                             |
| Metal sieves (4 mm mesh size)             | Blau-Metall    | 711082         | <a href="https://analysensiebe.de/shop/produkt/analysensieb-400-maschenweite-2000/">https://analysensiebe.de/shop/produkt/analysensieb-400-maschenweite-2000/</a>                                                                                                                                                                                                                                                                                                             |
| Mini-digger                               | Zeppelin Cat   | ZCS196577      | <a href="https://www.zeppelin-cat.de/shop/produkte/minibagger-kaufen/cat-301-8-minibagger-inkl-loeffel-und-schnellwechsler/?srsltid=AfmBOoQOG9_VONO0EmPK0GAYEr1onMxM-v3YyM14hZFK0i9YHXJ_0ddggcs">https://www.zeppelin-cat.de/shop/produkte/minibagger-kaufen/cat-301-8-minibagger-inkl-loeffel-und-schnellwechsler/?srsltid=AfmBOoQOG9_VONO0EmPK0GAYEr1onMxM-v3YyM14hZFK0i9YHXJ_0ddggcs</a>                                                                                   |
| Mortar tubs (90 L)                        | Gripline       | hardware store | <a href="https://www.hornbach.de/p/moertelkuebel-pe-eckig-78-5-x-46-3-x-31-0-cm-90-l/274293/">https://www.hornbach.de/p/moertelkuebel-pe-eckig-78-5-x-46-3-x-31-0-cm-90-l/274293/</a>                                                                                                                                                                                                                                                                                         |
| Multipot plates (QuickPotPlates - QP 96T) | Herkuplast     | 741238         | <a href="https://www.meyer-shop.com/product/view/37052?variantProductId=29253">https://www.meyer-shop.com/product/view/37052?variantProductId=29253</a>                                                                                                                                                                                                                                                                                                                       |
| Petri dishes (150 mm diameter)            | Labsolute      | 7696412        | <a href="https://www.thgeyer.com/lab/shop/petrischalen-ps-mit-nocken--aseptis/labsolute-/7696390_de?variant=7696412">https://www.thgeyer.com/lab/shop/petrischalen-ps-mit-nocken--aseptis/labsolute-/7696390_de?variant=7696412</a>                                                                                                                                                                                                                                           |
| Planting stencil (custom-made)            | UFZ            | n.a.           | Planting stencil manufactured by the workshop of the Helmholtz Centre for Environmental Research (UFZ), Leipzig, Germany,                                                                                                                                                                                                                                                                                                                                                     |

|                                            |                             |                |                                                                                                                                                                                                                                                                                                                                                                                                                       |
|--------------------------------------------|-----------------------------|----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                            |                             |                | specifically for planting the iDiv Ecotron metal cylinders.                                                                                                                                                                                                                                                                                                                                                           |
| Plastic foil                               | Cargo Point                 | hardware store | <a href="https://www.hornbach.de/p/cargo-point-stretchfolie-0-50-x-300-m-20/7152950/">https://www.hornbach.de/p/cargo-point-stretchfolie-0-50-x-300-m-20/7152950/</a>                                                                                                                                                                                                                                                 |
| Plastic shovels                            | Hünersdorff                 | hardware store | <a href="https://www.hornbach.de/p/abfuellschaufel-huenersdorff-1390-ml/6481824/">https://www.hornbach.de/p/abfuellschaufel-huenersdorff-1390-ml/6481824/</a>                                                                                                                                                                                                                                                         |
| Pressure sprayer (1500 mL)                 | Bürkle                      | 9223162        | <a href="https://shop.thgeyer-lab.com/erp/catalog/search/search.action?model.query=9223162">https://shop.thgeyer-lab.com/erp/catalog/search/search.action?model.query=9223162</a>                                                                                                                                                                                                                                     |
| Quartz powder                              | Quarzsande                  | n.a.           | <a href="https://quarzsand-shop.de/p/quarzmehl-25-kg-papier-sack-feinpulverig?srltid=AfmBOoptmSFCMO-9KTIKoStSkd6aV2OobmBa2_UUcpYHXJisHGdqJG">https://quarzsand-shop.de/p/quarzmehl-25-kg-papier-sack-feinpulverig?srltid=AfmBOoptmSFCMO-9KTIKoStSkd6aV2OobmBa2_UUcpYHXJisHGdqJG</a>                                                                                                                                   |
| Quartz sand HQS (0.3 - 0.8 mm size)        | Quarzsande                  | WMQ-10040      | <a href="https://quarzsand-shop.de/p/quarzsand-hqs?variant=1185">https://quarzsand-shop.de/p/quarzsand-hqs?variant=1185</a>                                                                                                                                                                                                                                                                                           |
| Seal plugs                                 | Umwelt Geräte Technik (UGT) | 1871000        | <a href="https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/">https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/</a>                                                                                                                                                                                                                         |
| Seed material                              | Rieger-Hofmann GmbH         | n.a.           | <a href="https://www.rieger-hofmann.de/startseite-rieger-hofmann.html">https://www.rieger-hofmann.de/startseite-rieger-hofmann.html</a>                                                                                                                                                                                                                                                                               |
| Soil moisture measuring kit (ML3 ThetaKit) | Delta-T Devices             | ML3 ThetaKit   | <a href="https://delta-t.co.uk/product/ml3/">https://delta-t.co.uk/product/ml3/</a>                                                                                                                                                                                                                                                                                                                                   |
| Soil monolith extraction device            | Umwelt Geräte Technik (UGT) | 1871000        | <a href="https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/">https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/</a>                                                                                                                                                                                                                         |
| Soil sensors (SMT-100)                     | Truebner GmbH               | SMT-100        | <a href="https://www.truebner.de/en/smt100.php#scroll-target">https://www.truebner.de/en/smt100.php#scroll-target</a>                                                                                                                                                                                                                                                                                                 |
| Spring steel tweezers (105 mm)             | Roth                        | AL99.1         | <a href="https://www.carlroth.com/de/de/spezialpinzetten-wafer-hakenpinzetten/federstahlpinzette/p/al99.1">https://www.carlroth.com/de/de/spezialpinzetten-wafer-hakenpinzetten/federstahlpinzette/p/al99.1</a>                                                                                                                                                                                                       |
| Stainless steel blade (custom-made)        | UFZ                         | n.a.           | Stainless steel blade manufactured by the workshop of the Helmholtz Centre for Environmental Research (UFZ), Bad Lauchstädt, Germany, specifically for inserting soil sensors into the iDiv Ecotron metal cylinders.                                                                                                                                                                                                  |
| Stainless steel cylinder                   | Umwelt Geräte Technik (UGT) | 1871000        | <a href="https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/">https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/</a>                                                                                                                                                                                                                         |
| Stick labels (12 cm x 2 cm)                | Meyer                       | 160140         | <a href="https://www.meyer-shop.com/product/view/36273?variantProductId=31841">https://www.meyer-shop.com/product/view/36273?variantProductId=31841</a>                                                                                                                                                                                                                                                               |
| Suspension                                 | Umwelt Geräte Technik (UGT) | 1871000        | <a href="https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/">https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/</a>                                                                                                                                                                                                                         |
| Temporary top/bottom plate                 | Umwelt Geräte Technik (UGT) | 1871000        | <a href="https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/">https://ugt-online.de/en/solutions/ugt-lysimeter-sampling-technology-for-mineral-soils/</a>                                                                                                                                                                                                                         |
| Toothpicks                                 | Büroshop24                  | 269946         | <a href="https://www.bueroshop24.de/500-papstar-party-picker-drop-kunststoff-269946?srpId=c8e0fcec04cb5e7e68a9bfe94096a8aa&amp;storeType=B2C&amp;lkz=1131602&amp;obt=20&amp;kwdid=5440413105-16705681638-135">https://www.bueroshop24.de/500-papstar-party-picker-drop-kunststoff-269946?srpId=c8e0fcec04cb5e7e68a9bfe94096a8aa&amp;storeType=B2C&amp;lkz=1131602&amp;obt=20&amp;kwdid=5440413105-16705681638-135</a> |

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|-------------------------|-----------------------------|----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                         |                             |                | 559674952-pla-328009876458&gad_source=1&gclid=CjwKCAiAqNSsBhAvEiwAn_tmxfrEZBIPohPHqFs2n6v_elmZTxL6QgkYdjBjMgZ2eYONmM05lwo-CRoCfWsQAvD_BwE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| Trowel                  | Kaufmann                    | hardware store | <a href="https://www.hornbach.de/p/berner-edelstahl-putzkelle-kaufmann-mit-softgriff/7940328/?marketNo=566&amp;wt_mc=de.paid.sea.google.alwayson_assortment.bod.pla.868482949.79838688391.&amp;wt_cc1=868482949&amp;wt_cc2=79838688391&amp;wt_cc3=377419910580&amp;wt_cc4=&amp;wt_cc6=7940328&amp;wt_cc7=566&amp;gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csiOTaWzpRLoalVADaAOi5ZchJEtFbKXvXJUocTnzbhZTWgEUTIXr0waAp1qEALw_wcB">https://www.hornbach.de/p/berner-edelstahl-putzkelle-kaufmann-mit-softgriff/7940328/?marketNo=566&amp;wt_mc=de.paid.sea.google.alwayson_assortment.bod.pla.868482949.79838688391.&amp;wt_cc1=868482949&amp;wt_cc2=79838688391&amp;wt_cc3=377419910580&amp;wt_cc4=&amp;wt_cc6=7940328&amp;wt_cc7=566&amp;gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csiOTaWzpRLoalVADaAOi5ZchJEtFbKXvXJUocTnzbhZTWgEUTIXr0waAp1qEALw_wcB</a>                                                                                                                                                                                                                                                                                                                 |
| Truck                   | Europcar                    | n.a.           | <a href="https://www.europcar.de/de-de/reservation/vehicles?utm_source=google&amp;utm_medium=cpc&amp;utm_campaign&amp;utm_term&amp;gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csn2Ph3makwxbwrSHzKvJNj9jaD-aiUvo8-4lRdCaUy8Gw_hgNW6KsaAiR2EALw_wcB&amp;gclidsrc=aw.ds&amp;vehicleType=TR&amp;pickupLocation=ZJSC04&amp;dropoffLocation=ZJSC04&amp;pickupYear=2024&amp;pickupMonth=12&amp;pickupDay=11&amp;dropoffYear=2024&amp;dropoffMonth=12&amp;dropoffDay=18&amp;pickupHour=10&amp;pickupMinute=00&amp;dropoffHour=18&amp;dropoffMinute=00&amp;driverAge=26&amp;countryOfResidence=DE">https://www.europcar.de/de-de/reservation/vehicles?utm_source=google&amp;utm_medium=cpc&amp;utm_campaign&amp;utm_term&amp;gad_source=1&amp;gclid=Cj0KCQjw4Oe4BhCcARIsADQ0csn2Ph3makwxbwrSHzKvJNj9jaD-aiUvo8-4lRdCaUy8Gw_hgNW6KsaAiR2EALw_wcB&amp;gclidsrc=aw.ds&amp;vehicleType=TR&amp;pickupLocation=ZJSC04&amp;dropoffLocation=ZJSC04&amp;pickupYear=2024&amp;pickupMonth=12&amp;pickupDay=11&amp;dropoffYear=2024&amp;dropoffMonth=12&amp;dropoffDay=18&amp;pickupHour=10&amp;pickupMinute=00&amp;dropoffHour=18&amp;dropoffMinute=00&amp;driverAge=26&amp;countryOfResidence=DE</a> |
| Tweezers                | Bochem Instrumente          | 9171013        | <a href="https://www.thgeyer.com/lab/shop/pinzette-105-mm-18/10-stahl/bochem-instrumente-1000/9171010_de?variant=9171013">https://www.thgeyer.com/lab/shop/pinzette-105-mm-18/10-stahl/bochem-instrumente-1000/9171010_de?variant=9171013</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Water suction probes    | Umwelt Geräte Technik (UGT) | 1211000        | <a href="https://ugt-online.de/en/solutions/ugt-suction-probe-with-ceramic-cup/">https://ugt-online.de/en/solutions/ugt-suction-probe-with-ceramic-cup/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Wood for the sensor log | Konsta                      | hardware store | <a href="https://www.hornbach.de/p/konsta-konstruktionsvollholz-40x60x3000-mm-fichte-nsi-nicht-sichtbarer-einbau/8465807/">https://www.hornbach.de/p/konsta-konstruktionsvollholz-40x60x3000-mm-fichte-nsi-nicht-sichtbarer-einbau/8465807/</a>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |